

THE
PHONETICS of the GAELIC LANGUAGE
AND
A SYSTEM OF PHONOGRAPHY.



BY
MALCOLM MACFARLANE.

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THE PHONETICS
OF THE
GAELIC LANGUAGE

WITH AN EXPOSITION
OF THE
CURRENT ORTHOGRAPHY

AND
A SYSTEM OF PHONOGRAPHY,

BY
MALCOLM MAC FARLANE.

“S i dh’ ioansaich sinn trath ann an luithean ar n-oig’.”

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P R E F A C E .

IN writing the following treatise, I have been actuated by a desire to supply an aid to the study of the Gaelic language. I have put together the rudiments of the subjects treated of as they present themselves to my mind. There may be imperfections, errors and overlooks; but, in what I have done, I claim to have done something useful. It has not been my aim to bring together a large amount of materials, but rather to furnish a basis for study and to indicate the directions in which it might be followed out. To those who are not already acquainted with the language, but who are desirous of learning it, the nature of the subjects and their method of treatment will be of some use; to those interested in philology they cannot fail to be of service; while, to the Gael who already knows somewhat of his mother tongue, they will furnish a useful instrument for improving his knowledge. I am not without the hope, too, that the publication of this book will add to the already increasing attention which is being bestowed on the Gaelic language as a factor in the school education of Highland children and even as an accomplishment among those who have received an English education.

The advantages which accrue from a knowledge of **Phonetics** are apparent to all who are interested in language. But, while these advantages have been acknow-

ledged in the cases of the English and other languages, and numerous efforts made to place them at the disposal of all who may care for them, nothing has been done in that way for the student of Gaelic beyond the attempts of grammarians and others to convey a knowledge of the powers of the Gaelic letters by referring them to an English standard. This practice is of questionable value, and should, if not give place to, at least be supplemented by something more scientific. If Gaelic is to have a standard orthography ; if even the present orthography is to be properly understood ; if dialectic differences of pronunciation are to be recorded in the best way for philological or other purposes ; or if, as some desire and hope, Gaelic is to be written phonetically, there must exist a knowledge of its phonetics.

Many of the terms used in the science of phonetics are liable to misinterpretation, and I have avoided their use as much as possible, trusting to convey my meaning by means of uncondensed statements. I have not encroached on the provinces of the philologist or the grammarian, beyond making a few casual references.

I have been guided in my investigations, to a considerable extent, by that section of Max Müller's "Science of Language" which is devoted to "Phonetics," written, apparently, out of an extensive knowledge of the works of English and foreign phonologists. I have made frequent reference to his treatise,* and have also compared my findings with those of Dr Stewart, whose Grammar of the Gaelic language is generally considered the best.

In devising an alphabet to record phonetically the various sounds in a consistent manner for the purposes of this book, I have selected types whose use need not be a strain on the ordinary resources of a printer, and whose new values need not be difficult to bear in mind.

* Vol. 2, Ninth Edition, Longmans, 1877.

The diagrams are not to be taken as exact, but merely as suggestive representations of what they are meant to illustrate.

The **Orthography** of the Gaelic language is a puzzle to those to whom its principles have not been explained ; and even to those who have given it their attention the purposes of its methods are not always apparent. In the light of phonetics it is easily understood, and, on that account, I have considered it right to devote a few pages to its exposition. Much that pertains to it will be made apparent in the section which treats of phonetics ; but, for a completer knowledge, pointed reference is necessary, besides being useful in casting a reflex light on many of the facts of phonetics.

There are differences of opinion in regard to the proper method of spelling certain words, with which I do not interfere : their settlement is the business of the etymologist.

The orthography of the Gaelic language being, as will be seen, an arrangement whereby a small number of symbols are made to serve many purposes, it lacks that simplicity and directness of method which should ensure quick writing as well as ready reading. Indeed, although the Gaelic is, perhaps, as easily read as most languages, it takes, probably, the longest time to write of any of those represented by the Roman alphabet. This is easily understood when it is known that two letters, and in many cases three, are used for the representation of one articulation or sound in most instances. Like other languages, too, the character of its written symbols is complicated, and, therefore, a great deal of unnecessary labour is expended in their formation.

In view of these facts, it can be imagined what scope there is for an effort towards saving of labour, and how

strong the plea in favour of a phonetic alphabet of a simple nature. To meet these desirable ends, and for other obvious purposes, the system of **Phonography** which is annexed has been devised.

In estimating its merits, it may be sufficient to contrast it with Pitman's English system, perhaps the best—at all events, the most firmly established—of all, and that from which, it is respectfully admitted, the leading principles of the Gaelic phonography were deduced. The chief differences are the use of long and short stems for the purposes fulfilled by thick and thin ones and the forms given to the vowel symbols. The thick stems are used to represent a special class of articulations ignored as a class by English phonographers—for instance, that to which the “g” of “gig” belongs, as distinguished from that to which the “g” of “gag” belongs. At first sight these differences may appear to the disadvantage of the Gaelic phonography. Exception may be taken to the use of stems of different lengths and to the vowel symbols being of a kind requiring some care in their formation. The use of half-length stems in Pitman's system for added “t” or “d” proves the first objection to be of little account; and, as vowels are all but discarded in the advanced stages of the art, when speed is the great aim, the other may be set down at the same value. On the other hand, granting these seeming disadvantages to be real, there are compensating advantages. The genius of the language compels the recognition of certain facts which are ignored by English phonographers. Consequently, the orthography and phonography of the Gaelic language are founded, and would necessarily have to be founded, on a minuter analysis of the sounds of speech. Again, the scheme of vowel symbols being such as it is makes the first stage of the phonography adaptable to phonotypy, thus making it possible, if desired, to secure

correspondence between the written and the printed letters. By reason of these attributes, the range of its application is less restricted than that of other systems. It can readily be used for recording minor peculiarities of pronunciation ; at the same time it has equal facility of manipulation ; and there is nothing in its methods to debar its application to the purposes of a shorthand—as I have demonstrated to my own satisfaction in trying to develop it beyond the stages given in this book.

M. M^C.F.

ELDERSLIE, 1889.



THE PHONETICS

OF THE

G A E L I C L A N G U A G E .

I. INTRODUCTION.

1. **The transmission of thought.**—The transmission of thought in the most rapid and complete manner is a problem which continues to exercise the mind of man, and it is one worthy of his best efforts.

2. **Speaking and Writing.**—In considering the two great methods of transmitting thought, namely, Speaking and Writing, it will be seen that, in the present age, they are mutually dependent on each other. The one assists in the acquiring and perfecting of the other. Each has its own function and supplements the other in the economy of thought.

3. Speaking is the art of conveying thoughts by sounds symbolical of ideas; it is acquired by imitation; it operates over limited areas, and is imperfectly adapted for reproduction otherwise than by mechanical means. Conceptions derived from spoken sounds are comparatively vivid; but, after being received, fade and cannot be renewed.

4. Writing is the art of representing thoughts by figures symbolical of the sounds of speech. It is learned, to a

certain extent, from definition. Its purposes are to operate over wide areas and to facilitate reproduction. Conceptions derived from writing are less vivid than those derived from speaking; but they can always be renewed to the extent to which writing is representative of speech. Reading is the art of reproducing the sounds of speech, or conceptions of them, from the written symbols. It constitutes the sole purpose of writing and is the reverse process.

5. Correspondence between Writing and Speaking desirable.—In view of the necessary connection between writing and speaking, we should expect the closest possible correspondence between the sounds of speech and the symbols of writing. This is, however, rarely found; and, though that circumstance has been, and is, the cause of an inconceivably immense loss of mental and physical energy, and, though the fact is so obvious, this so-called practical age has not been practical enough to remove the difficulty. Some object that we are not prepared with the best substitutes for present imperfections—that the remedies suggested and attempted as yet have not found acceptance among the leaders of thought sufficient to justify a change. For some, the short sharp effort to effect the changes required has more terror than the everlasting combat with present difficulties. Others are too ignorant to see the need of change. Others, again, are interested in keeping matters as they are. The first objection is legitimate, and the grounds on which it is based have to be removed. When that is effected, other obstacles will yield in due time.

6. The problem, stated in its simplest form, is “to fit the sounds of speech with suitable symbols.” It is necessary, first, to know what sounds; then, what symbols. The first part of the solution presents most difficulty. It consists in getting a consensus of opinion on what sounds

to use as a standard of pronunciation. Some maintain the futility of such an endeavour, and protest that, unless the standard be registered in a permanent form, discrepancies and inconsistencies would again arise in the course of time. Sounds are fleeting; letters lasting,—they say. But, surely, it may be left to Science to find such a register. May it not have already produced the type in the Phonograph! Such a consensus of opinion as that referred to can only be brought about by prosecuting the study of the phenomena of speech still further, interchanging ideas and developing therefrom theories and definitions which shall command general acceptance. To assist in gaining that end is one of the aims of the following treatise, in which the subject is examined in a light derived from a Gaelic source.

7. Phenomena of speech.—The phenomena of speech may be classed under two great orders which—to obviate the necessity of inventing names—may be designated Outline and Colour. The first order consists of the sounds and their grouping; the second, of the pitch, force and speed of utterance and their modulations. A knowledge of the first is essential to the understanding of the meaning. By it we differentiate one language from another and one dialect from another. To represent it is the function of ordinary writing. By the proper use of the second, conceptions are rendered more vivid. By it we differentiate one individual speaker from another and, sometimes, the style of one locality from another. The representation of the second order would enhance the value of writing; but its theory and practice have not been sufficiently developed—no doubt because there was less call for it. At present, writing represents only the outline: the colouring is left to the imagination—to fill in which requires training which might be greatly assisted by a system of written representation. But the first order consists of the essential elements of

speech ; and it is of the first importance that its principles be known and established, irrespective of the fate of the other. It is, therefore, proposed to analyse and define here the Sounds and their Grouping only.

8. **Language.**—All the inhabitants of the world do not associate the same sounds or groups of sounds with the same ideas. Large sections of them do ; and each separate system of symbolising ideas by sounds constitutes a language. A classification of the sounds of one language—without taking their grouping into account—would not serve for another. A classification of all the sounds of all the languages would not be practical. It would be too general an index for reproduction from it to be satisfactory, or too minute to be easily borne in mind. When a person knows more than one language he does not regard the sounds of one of them as part of a great whole composed of all the languages he knows. When he speaks one language he is all but oblivious to the sounds of the others. His case is analogous to that of the musician. Once the musician knows the key on which he is to play or sing, the relationship of the notes is his guide. Once the speaker has fixed upon the language he is to speak, he starts on the key of that language and maintains a certain relationship of sounds throughout his discourse. It may be difficult to define what constitutes the key of a language, yet pardonable to use the term. To know the sounds of one language by their relationship to those of another is not of great advantage in acquiring a new language ; yet, in analysing the sounds of one language for definition, comparison with and reference to another may in many cases be instructive. It is proposed to analyse and classify here the phenomena of the first order—the really essential elements—and those only of the Gaelic language, with the addition of such references to

the sounds of the English language as may be deemed advisable.

9. **Dialect.**—In the Gaelic, as in other languages, there are varieties of pronunciation for the same words; and educated and uneducated people alike rarely practise any other style than that of their own district. Many even persist in carrying it into their writings. But this they do not to the extent to which it were possible, because they find it difficult to escape the influence of the existing literature of the language, the greater part of which emanated from the south-western districts of the Highlands. There is no dialect in which something may not be found less decayed than in the others; and it is not altogether the style of one particular district which ought to be cultivated, but the best points of them all. This is a matter in determining which some philological knowledge is necessary. When the language of the south-west is examined in the light of philology it will be found that, generally speaking, the root vowels are more purely pronounced and the consonants less decayed than in most of the other districts. But there are certain styles of pronunciation, not belonging to this district, which may not be ignored because of the extent to which they are used; and there are others which a little scientific knowledge of phonetics—in other words, an educated taste—will condemn as those not to be cultivated. It has therefore been deemed proper to make a selection of those styles which seem most commendable for use in conveying a general knowledge of the science. When that has been acquired, it should not be difficult for the willing to note and record other dialectic peculiarities.

II. THE SOUNDS OF SPEECH CONSIDERED GENERALLY.

10. **The mechanism of speech.**—The sounds of speech are caused by the action of the breath on those parts which are located in the channel through which it passes.

11. The breath is forced inwards and outwards, to and from the lungs, by the combined action of the muscles of respiration and of atmospheric pressure. By these means the breath is made to flow with a steady, continuous motion, or with a jerky, intermittent motion; its flow may be withheld for a time; or it may be impelled with greater or less force.

12. In ordinary circumstances, the channel through which the breath passes begins in the lungs, includes the wind-pipe, the larynx, the glottis or upper opening of the larynx where the vocal chords are situated, the pharynx and the nasal passage, and ends with the nostrils. When breathing is taking place through the mouth, the outer part of the channel, instead of being through the nasal passage, is through the buccal cavity and ends with the lips. To turn the flow of the breath in this direction the velum pendulum which, in the former case, hung in what may be regarded as its normal position, is brought up into contact with the back wall of the pharynx and communication with the nasal passage is thereby shut off.

In Fig. 3, p. 24, *a* shows the normal position of the tongue; *b* the position of the glottis; *c* the pharynx; *d* the nasal passage, and the dotted line at *d* the velum pendulum in its normal position.

13. Those parts, lying in the channel of the breath, which are active in the production of the sounds of speech are the vocal chords, the velum pendulum, the tongue and the lips. It is unnecessary here to mention those whose functions are passive.

14. **The distinguishing characteristics of the sounds, whence derived.**—The sounds of speech derive their distinguishing characteristics from the disposition of the movable parts of the channel of the breath, and from the degree of force with which the breath is impelled.

15. Sounds are produced in the larynx by the combined action of the breath and the vocal chords; in the mouth by the action of the breath and the tongue, and at the lips by the action of the breath and the lips. These will be best understood if considered, first, apart from each other, and, afterwards, in connection with each other, according to their uses in speech.

16. **Sounds produced in the larynx.**—Sounds produced in the larynx derive their distinguishing qualities from the disposition of the vocal chords.

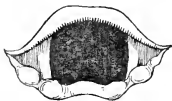


FIG. 1.

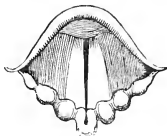


FIG. 2.

Fig. 1 shows the glottis when the vocal chords are in their normal state of relaxation; Fig. 2 shows it when they are in a state of tension during the production of a vocal note.

17. They are of two orders, namely, Vocal and Whispered. Vocal sound consists of regular isochronous vibrations imparted to the air by the action of the breath on the vocal chords, when placed near each other over the

glottis at certain degrees of tension. Whispered sound is caused by the action of the breath upon the edges of the glottis, when contracted by the vocal chords to a small triangular opening between themselves and the arytenoid cartilages.

Max Müller's *Science of Language*, p. 127.

18. Vocal sound is affected in its pitch by altering the tension and disposition of the vocal chords; and whispered sound may likewise be altered in pitch.

19. It is affected in its intensity by altering the pressure of the breath.

20. **Sounds produced in the mouth.**—Sounds produced in the mouth derive their distinguishing qualities from the disposition of the tongue.

21. They are of two orders. The one is caused by the breath impinging on the parts of the mouth, while flowing freely through a comparatively wide channel between the tongue and the roof and sides of the mouth. This kind of sound is comparatively faint, except when the breath issues with an explosive force: only then is it of much account as an attribute of speech. In the sequel it will be referred to as Oral sound.

22. The other is caused by the breath flowing compressedly through a comparatively narrow passage between the tongue and the roof of the mouth, with a hissing sound. It will be termed Lingual in the sequel.

23. Lingual sound is affected in its pitch by altering the configuration of the buccal cavity in which it resounds.

24. It is affected in its intensity by altering the pressure of the breath and the resistance offered to it by the tongue.

25. **Sounds produced at the lips.**—Sounds produced at the lips are caused by the breath passing between the lips so disposed as to produce a kind of hiss. They will be termed Labial in the sequel.

26. Labial sound is affected in its intensity by altering the pressure of the breath and the resistance offered to it by the lips; and may be affected as to pitch by the tongue enlarging or diminishing the cavity of the mouth.

27. **Modifications of Vocal sound.**—Vocal sound is modified by altering the size and shape of the buccal cavity. It retains its pitch notwithstanding the variations of the buccal cavity; but the harmonics which accompany the principal note vary with each alteration of the channel through which it passes. These harmonics are known by the name “timbre.”

28. **Modifications of Lingual and Labial sounds.**—Lingual and Labial sounds are modified by varying the shape and size of the buccal cavity. The principal note of lingual sound is produced in the mouth, and varies in pitch with each alteration of the buccal cavity, which has also its own invariable timbre. The modifications of labial sound which may be produced by varying the buccal cavity are slight.

29. **The Agents which modify sounds, the manner in which they act and the effects produced.**—The buccal cavity is altered in size and shape by the tongue, the lips, the velum pendulum, or by any combination of them.

30. The tongue may be pushed forward and upward to diminish the size of the buccal cavity; or it may be withdrawn backward and downward to increase it. By these means different timbres of vocal sound are produced. While the tongue remains in one position the timbre of the vocal note continues the same, even though the pitch should be altered. But, in moving the tongue from one position to another during the emission of vocal sound, the timbre is a progressive quality.

31. The lips may be opened out or brought together to

vary the shape of the buccal cavity. By these means other timbres of vocal sound are produced. While the lips remain in one position the timbre continues the same; but, in moving them from one position to another during the emission of vocal sound, the timbre is a progressive quality.

32. The velum pendulum may be applied to the back wall of the pharynx to shut off communication with the nasal passage; or it may be caused to hang in its normal position. By these means the timbre of vocal sound may be materially affected.

33. The tongue and the lips may act together; the tongue and the velum pendulum may act together; or all three may be acting together to produce the desired timbre of vocal sound.

34. Vocal sound may be passed through the nasal passage while the buccal cavity is closed in front by the tongue or the lips, and its timbre sensibly affected by the disposition of the tongue at the time.

Max Müller's *Sc. of Lang.*, p. 162, note 71.

35. The buccal cavity is altered for the production of the various orders of lingual sound by the application of the tongue to the upper wall of the mouth at different places and in different manners. The pitches and timbres of the sounds so produced may be affected by the disposition of the lips during the time of their utterance or by the disposition of that portion of the tongue which is free to move by reason of its non-employment in the production of the lingual note. Labial sounds are of one order only.

36. **The beginnings and endings of sounds.**—All sounds are progressive as to intensity, if not pitch, from no sound at their beginnings and to no sound at their endings. These progressions are distinguished by the greater or less speed at which they take place.

37. Sounds may be originated by impelling the breath

while the organs by which they are to be produced are in position ; and may be concluded by withholding the breath while retaining the organs in position. Sounds may be originated by placing the organs by which they are produced in position while the breath is flowing ; and may be concluded by relaxing them while the breath continues to flow. Sounds may be originated by impelling the breath simultaneously with the placing of the organs in position ; and may be concluded by withholding the breath simultaneously with the relaxation of the organs.

38. Vocal progressions.—Vocal sound is made progressive from no sound to sound, by the vocal chords changing from a relaxed state to the state of tension proper to the desired pitch ; and from sound to no sound by the vocal chords changing from the state of tension proper to the note being sounded to a relaxed state. The former may take place with the breath previously flowing or simultaneously with the breath's impulse ; the latter, while the breath continues to flow or simultaneously with its cessation. In sighing, the breath continues to flow after the vocal chords have relaxed.

39. Lingual progressions.—Lingual sound is made progressive from no sound to sound by the motion of the tongue from its normal position to partial contact with the upper wall of the mouth, or, from complete contact there to partial contact. It is made progressive from sound to no sound by the motion of the tongue from partial contact to complete contact, or, from partial contact to the normal position.

40. Labial progressions.—Labial sound is subject to similar progressions, the contacts being between the lips.

41. Changing from one timbre of vocal sound to another.—In changing from one timbre of vocal sound to another, the vocal chords may be relaxed after the first,

and brought to tension before the second ; or they may be retained at tension during the passage from the one to the other. In the latter case, if the breath continue to flow, the motion of the tongue, the lips, the velum pendulum, or any combination of them necessary to bring about the configuration required for the new timbre, causes the timbre of the vocal sound to be a progressive quality. If the breath is withheld during the movement of the organs, no such progressive quality is produced.

42. Changing from a Vocal to a Lingual or Labial sound.—In changing from a vocal sound to a lingual or labial sound, the vocal chords may be relaxed before action be taken towards producing lingual or labial sound ; they may be retained at tension ; or they may be in process of relaxing while action is being taken. In the second and third cases, the motion of the tongue or the lips causes the timbre of vocal sound to be a progressive quality ; in the first case, it is unaffected.

43. Changing from a Lingual or Labial to a Vocal sound.—In changing from a lingual or labial sound to a vocal sound, the tongue or the lips may have reached their normal or other position before the vocal chords are brought to tension ; may be moving towards their position while the vocal chords are at tension, or while they are being brought to tension. In the first case, the timbre of the vocal sound is unaffected ; in the other cases it is a progressive quality.

44. Changing from one Lingual or Labial sound to another.—In changing from one lingual or labial sound to another, from a labial to a lingual, or from a lingual to a labial, there is a progression of lingual or labial sound.

45. Vocal emitted along with Lingual or Labial sound.—When vocal sound is emitted along with lingual or labial sound, the latter is more or less lost to hearing.

46. **Motions affect intensity.**—Motions which widen or narrow the channel of the breath, and thereby increase or diminish its volume, affect the intensity of vocal and other sounds.

47. **Explosive effects.**—When the tongue or the lips abandon complete or partial contact with a sudden movement, the breath issues with an explosive effect. If the glottis be open, the sound caused is Oral; and its qualities are dependent on the configuration of the mouth when the breath strikes its parts, and the force with which it does so. If the vocal chords are at tension, or being brought to tension during the movement, the appulse of the breath on them has an effect on the vocal sound, distinguishable by the force and the nature of the explosion.

48. **The method of definition to be followed.**—For the purposes of written representation, the sound effects detailed in the preceding paragraphs are taken in groups which constantly recur in speech, each having some distinctive characteristic, and symbols allotted to each. In few systems are they as fully represented as should be desired. In ordinary writing, there is no attempt at representing the constituent elements of each group by marks of any kind. In other systems, such as Bell's Universal Alphabetics, these elements are represented by separate marks, or marks attached to a main stem. In Pitman's Phonography and that which follows, slope, length, thickness, and shape have each a signification in reference to the conditions necessary to the group represented. In defining those groups which have representative symbols, or which ought to have them, it is the usual and most practical way to detail the principal conditions necessary to their production, in a manner to show their constituent elements and the relations they bear to one another: and that method will be followed in the succeeding section.

III. THE SOUNDS OF SPEECH CONSIDERED SPECIFICALLY.

49. In endeavouring to treat the preceding generalities specifically in their relations to each other in the practice of speech, *viva voce* examples are indispensable to thorough explicitness. But, where that is unattainable, it is necessary to make use of written symbols, upon the value of which there is an approach to general agreement, as examples.

Stewart's Gaelic Grammar, 1879 Edition, p. 1.

I. VOWELS.

50. **Modifications of Vocal Sound.**—The possible modifications of the timbre of vocal sound are infinite in number ; but, for the purposes of language, a certain number sufficiently distinct from each other to be readily recognised, serve.

M. M's. Sc. of L., p. 128.

51. In the Gaelic language there are ten modifications which may be regarded as types to which dialectic and personal peculiarities of pronunciation may be referred as to a standard.

52. These modifications are termed "Vowels." The other modifications of Vocal, and those of Lingual and Labial sound, are termed "Consonants."

Vowels have been well defined as "being moulded by fixed or terse configuration of the free channel of the mouth, and creating no oral sibilation or friction in their emission."—*Bell's Universal Alphabetics*.

53. It will be generally acknowledged that the vocal sounds, exemplified in the following table, form a good

standard to which vocal sounds which occur in other words may be referred for comparison.

The English words are given for the purpose of lessening the risk of error in the conception of the sounds implied. They are supposed to be pronounced as a Scotchman would render them in reading.

There is no general agreement among speakers of English in the pronunciation of any word which might be used to exemplify the long sound of number 7. Some Scotch people use it in reading "where, there," etc.—*Stewart's Gram.*, p. 4.

TABLE OF VOWELS.

LONG			SHORT		
Phonotype.	Gaelic Examples.	English Examples.	Phonotype.	Gaelic Examples.	English Examples.
1 OO	nòs	dawn	O	dos	dot
2 AA	càs	far	A	cas	staff
3 ...	...	...	a	agam	but
4 QQ	Mórag	ore	Q	tog	coat
5 VV	taobh	...	V	lagh	...
6 UU	ràn	noose	U	dubh	took
7 EE	seimh	...	E	leag	let
8 ...	...	...	i	againn	bit
9 Æ	feum	ere	Æ	fead	face
10 II	cìr	seeche	I	sin	leap

The above vowels are referred to in M. M.'s Sc. of L., as follows: 1 at p. 130, fig. 7; 2 at p. 131, fig. 8; 3 at p. 133, par. 7; 4 at p. 130, fig. 6; 6 at p. 129, fig. 5; 7 at p. 134, ls. 13, 14, 20, 24; 8 at p. 133, par. 7; p. 134, ls. 18, 19; 9 at p. 132, fig. 9; and 10 at p. 132, fig. 10.

NOTE.—The phonotype for number 5 is an inverted A, and for number 9 an inverted E.

For 2, 3, 5 see fig. 4; for 1, 4, 6 see fig. 5; for 7, 8, 9, 10 see fig. 6. The dotted lines in figs. 4, 5 represent *a*; and in fig. 6, *i*.

54. If each of the vowels in the preceding list be associated with the size of the buccal cavity at the time of its utterance, it will be found that the list represents them in their order from that which requires the largest capacity of mouth to that which requires the least.

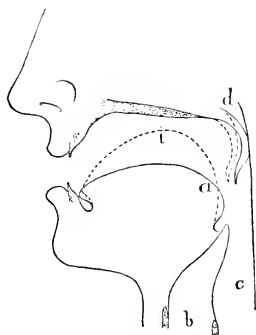


FIG. 3.

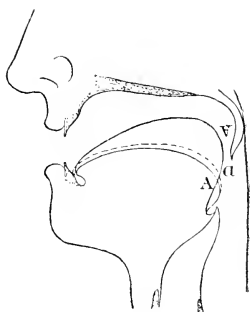


FIG. 4.

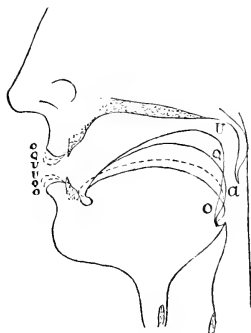


FIG. 5.

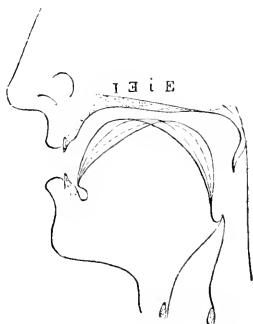


FIG. 6.

55. **Labialised vowels.**—In the case of o, q, and u, another condition besides the size of the buccal cavity is necessary to their full and satisfactory utterance, namely, the rounding in of the interior by the contraction of the lips. This is done by gradations from o to q and u—being least marked in o and most so in u. See fig. 5.

Reference to the diagrams on pages 129, 130, 131, and 132 of M. M.'s Sc. of Lang. bears out the statements made here in regard to o, a, q, u, æ, and i. At page 129, line 7, it is stated that a occupies an intermediate position. Assuming an intermediate position to mean about half-way up the scale of vowels as shown in the preceding table, the statement is not borne out by the diagrams. The natural pitch of the vowels, as given in the same book, seems to rise with the diminution of the buccal cavity and accords in that respect with the order given above, as regards the vowels which the lips do not assist.

56. **Nasalised vowels.**—If any vocal sound be produced while the velum pendulum is hanging in its normal position, the timbre is affected by the circumstance, d, fig 3. This nasal quality may be heard in many people's pronunciation of the following words and others of the same class.

O	<i>còmhradh, cuor, guomhail.</i>
A	<i>mànrán, guòth, cuap.</i>
V	<i>uon, nuomh.</i>
Q	<i>lón.</i>
U	<i>càunradh, tuì, cuvic.</i>
E	<i>nèamh, guè, cueamh.</i>
Æ	<i>feum, cneas.</i>
I	<i>prìomh, guìomh, sìn.</i>

M. M.'s Sc. of L. p. 136.

The vowels q and æ are rarely found nasalised. They are used by some frequently where others use o and e, *e.g. beal, dobhrán.*

The presence of nasality in the pronunciation of vowels in certain words is due to phonetic evolution. In the written language, all vowels which are nasalised in the spoken are flanked by *n* or *m*, which in many cases are not sounded. In the pronunciation of *n* and *m*, one of the con-

ditions is that the velum pendulum hangs in its normal position. In some words, this condition, proper to the *n* or *m*, is anticipated and attached to the vowel preceding. In other words, when the vowel follows *n* or *m*, the same condition is maintained during the utterance of the vowel. In other words, again, the natural tendency to save labour makes the hanging down of the velum pendulum during the utterance of the vowel, and the consequent nasality, serve for the consonantal articulation which ought to follow. In the course of time, when the practice has become established, the nasality itself comes to be abandoned and the velum pendulum comes to act as it does in the case of ordinary vowels. This too is a saving of labour, for the velum pendulum is in most instances, during speech, applied to the back wall of the pharynx, from which it is labour to remove it and again to re-apply it. It would appear, then, reasoning from the preceding facts, that nasality is not a permanent or necessary characteristic of Gaelic vowels, but merely a transitional one.

In Cantire and Islay *a* is pronounced *E* before or after a nasal consonant, *e.g.*, *math*, *namhaid*, *àm*, *frangach*.

57. High vowels.—It will be readily perceived, when sounding the whole series of vowels, that *E*, *i*, *æ*, and *ɪ* differ materially in timbre from the rest. They are more piercing. Possibly, this is due to the roof of the mouth, which forms the upper wall of the resounding cavity during their utterance, being composed of a hard unyielding substance—the bony palate—while, in the case of the other vowels, it is composed partly of a soft flexible substance—the soft palate. Of course this suggestion has to be considered along with the fact that the capacity of the buccal cavity diminishes from *o* to *ɪ*. See fig. 6.

58. The Rest vowels.—The vowels *a* and *i* occur in short words of frequent occurrence, such as the article, and in the unaccented syllables of some words. They are sometimes long in singing; but they should not coincide with the emphasised note of a bar of music. When the tongue is in its normal position the vowel which may then be uttered is *a*. After a certain class of consonants the tongue comes to rest at its normal position; after another

class it comes to rest at the position proper to the pronunciation of *i*. See fig. 3.

M. M.'s Sc. of L., p. 133, par. 7. The definition there given as that of Prof. Willis, namely, "the natural vowel of the reed," is correct if limited in its application to *a*. So also that of Mr Ellis, "the voice in its least modified form." But, applied to *i*, neither of these definitions hold good. Max Müller's own idea that it is a non-sonant or breathed vowel is not correct, for it can be sung like any other vowel. The vowels of unaccented syllables have a tendency to become *a* or *i*. It is a notable fact that east-country Lowland Scots have a penchant for *i* where west-country people use *a*, e.g., "Edinburgh," pronounced "Edinbura" in the west, is "Edinburi" in the east, and so on. The statement that some people hear these vowels everywhere is due to the tongue so frequently coming to rest in performing its consonantal articulations at these vowel positions. When it does so without vocal sound proceeding, it is then the non-sonant or breathed vowel referred to by Max Müller which is heard—the *Orala* and *i*.

Stewart's Gaelic Grammar, p. 3. (1) *a* = *aa* and *Λ*. (2) *a* = *vv* and *v*. (3) *a* = *a*. (1) *e* = *EE* and *E*. (2) *e* = *ΞΞ* and *Ξ*. (3) *e* = *a*. (1) *i* = *II* and *I*. (2) *i* = *i*. (1) *o* = *oo* and *o*. It should be noted that "more" and *mor* are generally pronounced *mqqr*; and *mo* and *do* generally *mq*, *dq*. It is only the few who pronounce them as indicated by Stewart, (2) *o* = *qq* and *q*. As will be referred to in another place, the vowels of *lou*, *toll*, *fonn*, and such like are shorter than what is usually reckoned long. The quantity seems to be eked out in the interval given to the consonant following, which is dwelt upon longer than in *lomadh*, *tolladh*, *fonnar*. (3) *o* = *vv* and *v*. The examples under this head are not universally so pronounced, though they are generally so. (1) *u* = *uu* and *u*. Stewart neglects to notice that *u* in unaccented syllables generally = *a* as in *foghlum*, *farum*, &c. *Oran* and *cogadh*, are sometimes pronounced with (2) *o*, i.e. *q*, long and short respectively.

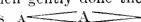
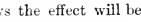
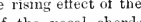
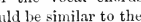
59. Weak beginnings of vowels.—In the case of vowels unpreceded by consonants, the flow of the breath and the motion of the vocal chords to their position begin simultaneously, e.g., *òg*, *aluinn*, *obair*, *uol*, *ùr*, *each*, *eug*, *ìm*.

60. Weak endings of vowels.—In the case of vowels not followed by a consonant, the cessation of the breath and the relaxation of the vocal chords occur simultaneously, e.g., *gò*, *bhà*, *có*, *baoth*, *thù*, *sè*, *té*, *ù*. The final *th* of *baoth* is not sounded.

61. **Strong beginnings of vowels.**—If vowels be begun with a more forcible or jerky impulse of the breath and a more sudden drawing up of the vocal chords to tension, the effect is appreciated. This is found at the beginning of words such as *thog*, *shùn*, *h-ugam* ; and also the three words *fhein*, *fhuair*, *fhatthast*.

62. **Strong endings of vowels.**—The corresponding strong impulse occurring simultaneously with the sudden relaxation of the vocal chords, as the closing effect of a vowel, is found in final accented short vowels and vowels, long and short, preceding the letters *c*, *p*, *t*, e.g., *gath*, *so*, *guth* ; *sac*, *sop*, *lot*.

M. M.'s Sc. of L. ps. 138 to 144. At 142 it is stated that the very nature of *h* consists in the noise of the breath rushing forth unchecked from the lungs to the outer air. If that were a correct definition of the effect represented by *h*, it would not be heard at a distance. But the effect of *h* is appreciated at a considerable distance, where only vocal sound can be heard. It were better defined as a certain initial effect of vocal sound, caused by the strong and sudden appulse of the breath on the vocal chords while taking their position with quick movement, as distinguished from the weaker appulse and slower movement to which no symbol is allotted, the same being unnecessary. The counterpart strong and sudden ending of vowels is an essential element in Gaelic speech.

The following experiment will perhaps bring out more clearly the effects referred to. Let *A*, or any vowel, be sounded continuously. Press the chest with the hand intermittently. When gently done the effect, recorded graphically, will be as follows *A*  *A*  *A* and so on. When done like blows the effect will be like *A*  *A*  *A* and so on. If each progressive rising effect of the first example were accompanied with the motion of the vocal chords from a state of relaxation to one of tension, it would be similar to the weak beginning of a vowel. Each falling effect, with the opposite accompaniment, would be the weak ending. The sudden rising and falling effects of the second example, taking place with the same accompaniments, would be similar to the strong beginning and ending of a vowel.

The phonotype used in the sequel for the strong beginning and ending is ' an inverted period. That for the weak beginning and ending is ' an inverted comma. The

latter need only be used in special circumstances which may be noted as they occur. The phonotype for nasality is , an inverted apostrophe , after the vowel nasalised.

II. CONSONANTS.

63. The name "Consonant" is applied to the groups of vocal, lingual, labial and oral sound effects produced by the movements of the organs of speech. The principal use of these movements is to mould the accompanying vocal sounds at their beginnings, in their lengths and at their endings; and it is by their effects on vocal sound, chiefly, and, at a distance, wholly, they are recognised. Near at hand, their recognition is greatly assisted by the accompanying lingual, labial or oral effects. The possible modifications of these effects are infinite; but, for the purposes of language, they are appreciated as types easily distinguishable from one another. They will be explained first apart from, and then in conjunction with, vocal sound.

64. **Back Linguals, partial contact.**—The back part of the tongue is applied with partial contact to the soft palate, and to the roof of the mouth so as to leave a small opening in the middle through which the breath issues with a kind of a hiss which, resounding in the cavity of the mouth, derives its highness or lowness of pitch, and its particular timbre from the configuration of the buccal cavity at the time. This class is represented in writing by *gh* and *ch*. The latter differs from the former in the pressure of the breath being stronger, and the resistance of the tongue to its passage being greater.

M. M.'s Sc. of L., p. 145, figs. 13, 14.

Stew. Gaelic Gram., ps. 13 and 14.

65. When *gh* and *ch* precede or follow *a*, *o*, or *u* in writing, the tongue is applied to that part of the soft palate which is nearest to the back of the tongue lying in its

normal position—that point where the cavity of the mouth begins to expand when *a* is the vowel being pronounced, fig. 7. There is a tendency on the part of the tongue to place itself as convenient as possible to the position of the vowel adjoining it, and, consequently, it is placed higher up the soft palate in the cases of *ghaol*, *luch*, *chaol*, than it is in the cases of *ghò*, *ach*, *chòir*.

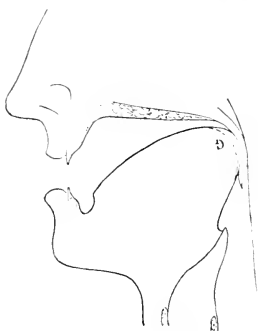


FIG. 7.

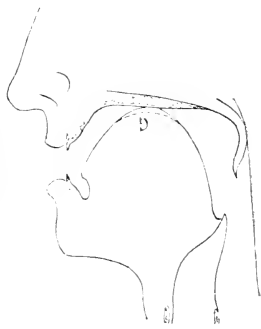


FIG. 8.

66. When *gh* and *ch* precede or follow *e* or *i* in writing, the back part of the tongue is applied to that part of the hard palate nearest to the point where the buccal cavity begins to expand when the vowel *i* is being pronounced, fig. 8. This class is of a pitch much higher than that of the preceding class, and, like the vowels of the same region, their lingual sound is more piercing. The differences between *gh* and *ch* conjoined to vocal sound will be best explained by following the processes which produce the vocal effects by which they are distinguished.

67. When *gh* precedes a vowel, e.g., *ghabh*, *ghin*, the tongue takes its position and, after a short interval of

lingual sound of low intensity, proceeds to the vowel position while vocal sound is being begun with the weak effect modified by the nature of the explosion caused by the tongue's withdrawal from partial contact. When it comes between vowels, e.g., *aghaidh*, *faighidh*, the vocal sound of the first dies away with the weak ending while the tongue is moving to its position; thereafter, the process is the same as the last. When it is final following a vowel, e.g., *lugh*, *faigh*, the process is the same as the last, except that, after the interval of lingual sound, the tongue falls to its normal position or that for *i*, as the case may be, with an explosive effect of oral sound of low intensity. Sometimes, particularly when *gh* comes between vowels, the vocal chords are not relaxed during the interval of lingual sound. In this respect it resembles the partial contact sonants of the English language.

68. When *ch* precedes a vowel, e.g., *chas*, *chis*, the tongue takes its position and, after a short interval of lingual sound of high intensity, moves to the vowel position with an explosive effect of oral sound, the vocal chords taking their position at the instant of its arrival with the strong effect modified by the nature of the explosion. When it comes between vowels, e.g., *cluchan*, *cloiche*, the preceding one is concluded with the strong ending simultaneously with the tongue's motion to the partial contact. The process thereafter is similar to the last. When it is final following a vowel, e.g., *loch*, *teich*, the process is the same as the last, with the difference that the tongue falls to its normal position or that for *i*, as the case may be, with an explosive effect of oral sound of high intensity.

M. M.'s Sc. of L., p. 145. The diagrams given there are scarcely representative of Gaelic *gh* and *ch*. Figure 13 made applicable to Gaelic would show the curvature of the tongue more rounded and the back of the tongue nearer to the soft palate. Fig. 14 would show the curvature also more rounded and the point of closest approach nearer to the front

teeth. Gaelic *gh* and *ch* are much more than merely lifting the tongue against the uvula. In the pronunciation of *ch* by some, the uvula and the fringe of the soft palate vibrate in the breath. But this is an unrefined pronunciation peculiar to certain districts; and it probably gives rise to the contention of Englishmen, that the "guttural" (as they call it) is a harsh sound. No Englishman associates harshness with "y," as in "you"; yet it belongs to the class which he is pleased to call "the gutturals."

69. Back Linguals, complete contact.—When the processes for *gh* and *ch* are carried out in all their details, but substituting complete for partial contact, the representative symbols are *g* and *c*, respectively. When *g* follows *n*, in general, the vocal chords are not relaxed until after the tongue is in contact with the palate; and, if a vowel follows the *g*, are not relaxed at all during the contact. In this respect they act similarly to what takes place in the case of the English hard "g," as in "go," in all conditions.

M. M.'s Sc. of L., p. 153, fig. 20; p. 162, ls. 18 to 20; p. 163, ls. 10 to 22. The statement there made corresponds to what takes place in the cases of Gaelic *c*, *p*, *t* followed by vowels. The *spiritus asper* follows the complete contact. It is worthy of notice that Gaelic *c*, *p*, *t*, rarely follow long vowels, and do not often occur in the unaccented syllables of words.

M. M.'s Sc. of L., p. 144, note 51. Gaelic may be included in the category of "other languages."

In many parts of the Highlands, perhaps most, *c* after a vowel is pronounced *che*, like the pronunciation given to *chd*. In parts of Cantire and Sutherland it is sounded like English "k," and differs slightly, if anything, from Gaelic *g*. But the pronunciation which accords with that of the other complete contact consonants and which, on that account, may be looked upon as most natural and refined, is that which corresponds to the description given in the preceding context.

Stew. Gael. Gram., p. 14, note (o).

70. Front Linguals, partial contact.—The front part of the tongue is applied to the front gums and the

roof of the mouth so as to leave a passage at a middle position, through which the breath issues with a hissing sound, whose pitch and timbre depend on the configuration of the resounding cavity. This class is represented in writing by *s*.

M. M.'s Sc. of L., p. 147, figs. 15 and 16.

Stew. Gael. Gram., p. 16.



FIG. 9.



FIG. 10.

71. When *s* precedes or follows *o*, *a*, or *u* in writing, the front part of the tongue is generally applied to the gums of the front teeth, fig. 9.

72. When *s* precedes or follows *e* or *i* in writing, the front part of the tongue is generally applied to that part of the roof of the mouth where the back part of the tongue was applied in the case of *gh* preceding *e* or *i*, namely, the region of *i*, fig. 10.

73. When *s* precedes a vowel, e.g., *son*, *sin*, the lingual sound is heard, then, when the tongue is moving to the vowel position, vocal sound begins with the weak effect modified by the nature of the explosion caused by the

tongue's withdrawal from partial contact. When *s* comes between vowels, e.g., *casan*, *mise*, the first dies away with the weak ending while the tongue is moving to partial contact, the lingual sound ensues, and vocal sound is resumed with the weak beginning while the tongue is withdrawing from partial contact to the vowel position. When *s* is final following a vowel, e.g., *cas*, *cis*, the process is the same as the last, with the difference that the tongue goes to the normal position, or that for *i*, as the case may be, with an explosive effect of oral sound of low intensity.

74. Vocal sound preceding *s* is sometimes ended and, following *s*, sometimes begun with the strong effect, in short accented syllables, e.g., *cas*, *sac*. This difference will be represented in the sequel by the following phonotypes—*s* when the vowel precedes; *s'* when the vowel follows.

75. But the functions which *s* fulfils in the Gaelic language do not require that notice should be taken of the differences between *s* and *s'* or that there should be two symbols. The lingual sound of *s* is the most piercing and most easily heard at a distance. It is heard and distinguished as lingual sound rather than by its vocal effects. This fact may account for its extensive use as an element in compound consonants.

M. M.'s Sc. of L., p. 147, figs. 15 and 16. Figure 15, made applicable to Gaelic *s*, conjoined to *o*, *a*, *u*, would show the tip of the tongue lying against the back of the lower teeth and the point of closest approach to the upper gums, about three-quarters of an inch from the tip of the tongue—the tip of the tongue is applied broadly instead of pointedly. Figure 16, made applicable to Gaelic *s*, conjoined to *e*, *i*, would show the tip of the tongue about level with the upper gums, the closest approach of the tongue to the hard palate about an inch further back, and the curvature of the tongue much more like that shown on figure 15. It is difficult to imagine figure 16 as a correct representation of English "sh." At all events it does not represent the Gaelic *s* when flanked by *e* or *i*, which has the same effect.

76. **Front Linguals, complete contact.**—If the pro-

cesses for *s* and 's' be carried out in all their details, but substituting complete for partial contact, the effects produced are those represented by *d* and *t* respectively. When *d* follows *n*, in general, the vocal chords are not relaxed till after the tongue is in contact with the gums or palate; and, if a vowel follows the *d*, they are not relaxed at all during the contact. In this respect they act similarly to what takes place in the case of English *d* in all conditions.

M. M.'s Sc. of L., p. 148, fig. 17. *Dh* and *th* (English value) are generally classified as the aspirates of *d* and *t*, or, as stated by some, as the continuants of *d* and *t*, explodents. Stewart the Gaelic grammarian yields to this view (page 16 note *r*). While in a sense true, it is not altogether correct. *Dh* and *th* are not to *d* and *t* as *gh* and *ch* are to *g* and *c*, or as *bh* (*v*) and *ph* (*f*) are to *b* and *p*. But *s* and 's' are. *Dh* and *th* are produced by leaky contact of the tongue and teeth, and away from the teeth there can be no *dh* and *th*. If *dh* and *th* were the true continuants of *d* and *t*, they, when conjoined to *e* or *i* would partake of the character of *d* and *t* in the same circumstances; i.e., the tongue would be applied to the roof of the mouth. But *dh* and *th* cannot be sounded there. *D* and *t* correspond in their relations to *s* and 's' entirely as *g* and *c* correspond to *gh* and *ch*. Many Gaelic people find a difficulty in pronouncing English *dh* and *th*: some substitute *s* and *z*, others Gaelic *d* and *t*. If the contact for Gaelic *d* and *t* be allowed to leak anywhere, even between two teeth wide apart, we have English *dh* and *th*. When Irishmen are represented as saying "murther" for "murder," it means, in most instances, that they are pronouncing the *d* after the Gaelic fashion.

77. Nasal Linguals.—If, while the tongue is in contact for *d* or *t*, the velum pendulum be dropped, and the vocal chords made to sound, it is heard through the nose, and the representative symbol is *n*, figs. 9, 10.

M. M.'s Sc. of L., p. 160, fig. 24. Stew. Gael. Gram. p. 17.

78. This consonant is of four varieties, whose timbre and other effects are dependent on the position of the tongue in the buccal cavity. They are to be found initially placed in the following words.

1. *namhaid*, enemy...*naïs g e*, pledge it, fig. 9.
2. *mo namhaid*, my enemy...*naïs g mī e*, I pledged it, fig. 11.
3. *nighean*, daughter...*nigh e*, wash it, fig. 10.
4. *mo nighean*, my daughter...*nigh mī e*, I washed it, fig. 12.

Number 1 corresponds in position to Gaelic *d* as in *do*; number 2 to English "d" as in "do," fig. 11; number 3 to Gaelic *d* as in *deth*; and number 4 to English "d" as in "did," fig. 12. The difference between the Gaelic and

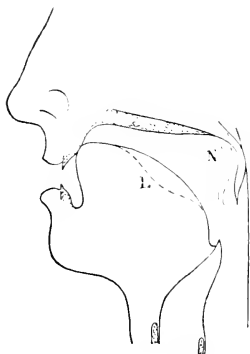


FIG. 11.

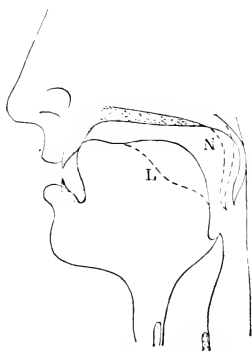


FIG. 12.

English *d*, as to position, consists in the tongue being applied, in the former case flatly, and, in the latter case pointedly. The difference between English "d" of "do" and that of "did" consists in the portion of the tongue not employed in the contact, being, in the former case, in *a* region, and in the tongue coming to rest at *a* after withdrawal, while, in the latter case, the free portion of the tongue is in *i* region, and the tongue comes to rest at *i* after withdrawal.

M. M.'s Sc. of L., p. 162, note 71. The mouth forms only a resounding cavity modifying the sound.

79. The processes for the various *n*'s correspond to those for the *d*'s, with the difference, that the velum pendulum drops simultaneously with the arrival of the tongue at *d* position. The velum pendulum being then down and passage for the breath being stopped in front, it and the vocal sound are emitted through the nose.

80. When *n* precedes a vowel, the velum pendulum rarely rises previous to the vowel, but remains down, giving colour to the vowel timbre. The *n*'s are appreciated mainly as vocal sound and might be classed as such. But when they are final the tongue withdraws to its rest position with the explosive effect of oral sound of low intensity. When *n* comes between vowels, e.g., *sona* or *cannach*, the vocal sound does not cease. It is merely altered in timbre and intensity, progressively during the motion of the tongue to its position, continuously while in position, and, if followed by a vowel, progressively, again, during its motion to the vowel position. In the pronunciation of *nn* final by the people of the south-west of Argyleshire, the vocal chords continue to vibrate for a longer interval after contact is reached than is the case in other districts. It is in this respect similar to the English "n" of "fin, fun," etc.

81. *N* flanked by broad or low vowels in writing, or final preceded by the same vowels, is generally pronounced like number 2, e.g., *canach*, *fan*. *N* flanked by small vowels, or final preceded by small vowels, is pronounced like number 4, e.g., *fine*, *gin*. *Nn* is always pronounced like numbers 1 and 3 according to the adjacent vowels, e.g., *clannach*, *bonn*; *binnean*, *cinn*. Islay and Arran people and, perhaps, others often pronounce single *n* like *nn*, e.g., *duine*, thus, *duinne*.

82. **Nasal Back Lingual.**—When the article *an* precedes *c* or *g*, e.g., *an cu*, *an gunna*, to save the trouble of

moving from the front of the mouth for *n* to the back of the mouth for *g*, it is applied at once at *g* position, and the velum pendulum dropped to give the vocal sound play and nasality. The *c* or *g* effect follows while the velum pendulum is raised. The same is found in the words *teanga*, *luing*, etc. This nasal is never used unless *c* or *g* is to follow it. It is analogous in all respects to *nd* and *mb*, and is rightly classed among the double consonants. Convenience regulates its use as it does the change of *an* to *am* before words beginning with *b*, or the change of "Dun" into "Dum" in the name "Dumbarton."

M. M.'s Sc. of L., p. 160, fig. 23. Stew. Gael. Gram. p. 18, ls. 6 and 7.

83. **Side Linguals.**—Another class, having four varieties analogous to the *d*'s and *n*'s, is that represented by *l*. The point of the tongue is applied exactly as for *d* and *n*, but its sides are relaxed to allow of the passage of the breath. A lingual hiss is heard coming out between the cheeks and the teeth. But it is not by this sound that the consonant is distinguished, but by the modification of vocal sound caused by the position of the tongue. See L, figs. 9 and 10.

M. M.'s Sc. of L., ps. 151 and 152. Stew. Gael. Gram., p. 17.

84. When *l* comes between vowels, *e.g.*, *balach*, *bilean*, the vocal sound does not cease; it is merely altered in timbre progressively by the motion of the tongue to its position, continuously while in position and progressively, again, by the motion of the tongue to the second vowel position. When it precedes a vowel, *e.g.*, *lan*, *lion*, the vocal chords begin to act before the tongue leaves *l* position. When it is final, *e.g.*, *fuil*, *ceol*, *pill*, *ball*, the vocal chords relax when the tongue reaches partial contact, and the tongue comes to rest at *a* or *i* position with the explosive effect of oral sound of low intensity. In the pronunciation of *ll* final by the people of the south-west of Argyleshire, the vocal chords continue to vibrate for a short interval

after the contact has taken place, thus acting as they do in final English *ll*.

85. The four *l*'s are found in the initial position of the following words.

1. *lanh*, hand *las e*, light it. Fig. 9.
2. *mo lanh*, my hand *las mi e*, I lit it. Fig. 11.
3. *leabhar*, book *leag e*, knock it down. Fig. 10
4. *mo leabhar*, my book *leag mi e*, I knocked it down. Fig. 12.

L flanked on both sides by *a*, *o*, or *u*, or final preceded by them in writing, is generally pronounced like number 1, fig. 9. *L* flanked on both sides by *e* or *i*, or final preceded by them, is pronounced like number 4, fig. 12. *Ll* is always pronounced like numbers 1 and 3 according to the vowels adjacent to them, figs. 9, 10.

M. M.'s Sc. of L., p. 162. The paragraph referring to mouille consonants cannot be accepted as applicable to Gaelic. The *n* of *bun* and the *l* of *dol*, if pronounced with *y* (*gh* of *ghin*) following them, might serve as substitutes to illustrate to a nearness the *n* of *buinn* and the *l* of *doill*, but that pronunciation would not be correct. The *n*'s and the *l*'s referred to derive their mouille characteristic from their pronunciation by the tongue in the high region of the mouth, like *gh* of *ghin*, *s* of *sin*, &c.

M. M.'s Sc. of L., p. 152, ls. 10 to 13. The lateral edges of the tongue vibrate only in response to the vocal vibrations of the breath passing them.

86. **Trill Linguals.**—Another class, having four varieties, somewhat similarly related to each other and produced by the forepart of the tongue, is represented by *r*. For the production of *r* the forepart of the tongue is placed against the front gums with such a tension or resistance as balances the force of the breath and causes a vibratory motion. This vibratory motion may be made continuous; but in the practice of speech one or two vibrations serve. During its enunciation the vocal chords do not relax, but the vocal sound is intermittent on account of its intermittent complete and partial contact; and the motion of the tongue

to and from its position has a progressive effect on vocal sound.

M. M.'s Sc. of L., p. 151 and 152. Stew. Gael. Gram. p. 18.

87. The four varieties are found initially placed in the following words :

1. *ruith*, run *ràn*, intention. Fig. 13.
2. *ruith mi*, I ran ... *mo ràn*, my intention. Fig. 14.
3. *reic e*, sell it *righ*, king. Fig. 13.
4. *reic mi e*, I sold it *mo righ*, my king. Fig. 14.

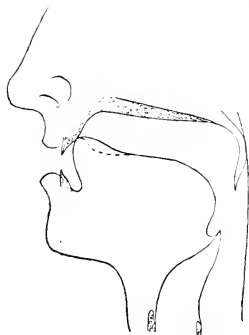


FIG. 13.



FIG. 14.

88. Numbers 1 and 3 differ from numbers 2 and 4 in the tongue being used broadly in the former, while it is used pointedly in the latter cases. Numbers 1 and 2 differ from numbers 3 and 4 in the free portion of the tongue being at *a* position in the former, while it is at *i* position in the latter cases, and in the tongue finding its rest position after the former at *a* while, after the latter, it comes to *i*.

89. *R* and *rr* flanked by *a*, *u*, or *u* in any other than the

initial place, e.g., *fearr*, *fear*, is generally pronounced like number 1. *R* flanked by *e* or *i*, e.g., *fireach*, *cìr*, in the same circumstances is generally sounded like number 4.

The speakers from whom the pronunciation of *l*, *n*, and *r* were noted were old persons. Many of the younger generation pay little attention to the distinctions detailed in the preceding text, particularly those who, like clergymen, are in the habit of seeing and reading printed Gaelic. This probably arises from the want of symbols for the inflected *l*'s, *n*'s and *r*'s along with insufficient knowledge on the part of the readers.

Stewart in his grammar gives only three kinds of *r*'s. He recognises no difference between numbers 1 and 3 as given above, for he includes *rioh* in class 1. In the pronunciation of *rioh* by some people—Skyemen for instance—it is *ruigh*, and in their case *r* is number 1. The great intention of the language, so to speak, is that there should be a plain and an inflected *r*—the one done by the tongue broadly, the other pointedly: the other accompaniments are more accidental than anything else; and all purposes would be served by a classification which included 3 under 1 and 4 under 2.

In some cases, the point of the tongue gets a mere flap in the stream of breath flowing past, sometimes striking the gums and sometimes not. In other cases, the vibratory motion proper to *r* (generally 2 and 4) is slurred over by merely placing the tongue in position with close partial contact giving an effect approaching that of *z*.

90. **Strong *n*, *l* and *r*.**—When *n*, *l* and *r* are pronounced with high pressure breath, the lingual hiss, the vocal sound, and the explosive effect due to the withdrawal of the tongue from contact are more intense. They are found in the following examples. They are invariably in the inflected cases of words and initially placed: *thuà*, *shuàich*; *thlath*, *shlòc*; *thràth*, *shrac*; *shuòmh*; *thligheach*, *shlighe*; *thric*, *shrican*. The *n*'s are generally numbers 2 and 4 according to the vowel following. The *l*'s and *r*'s are generally numbers 1 and 4.

91. **Labials.**—The sound effects produced by the lips are represented by *bh*, *ph* and *f*, *b* and *p*. The signs *ph* and *f* represent the same sound and, as letters, have only a philological interest.

M. M.'s Sc. of L., p. 148, fig. 18; p. 153, fig. 22. Stew. Gael. Gram., p. 12.

92. **Labials, partial contact.**—In the pronunciation of *bh* and *ph* it is customary to bring the lower lips close to

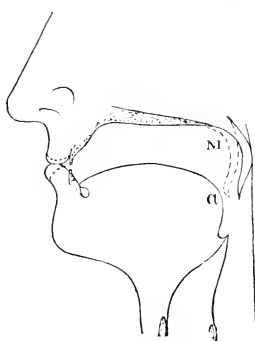


FIG. 15.

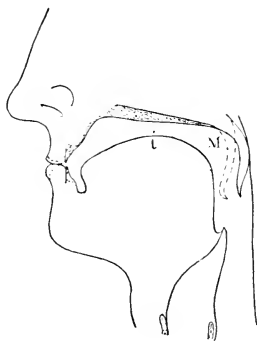


FIG. 16.

the edges of the upper teeth, thereby making the labial hiss more piercing. This practice is not quite universal; and, at a distance, the effect is much the same, whether the lips be placed against the teeth or not.

93. When *bh* is flanked on both sides by vowels, e.g., *gabhaidh*, the vocal sound preceding ends with the weak effect and is succeeded by the labial hiss. After a short interval of labial sound the lips proceed to the vowel position while the vocal sound is being resumed with the weak effect. When it is final after a vowel, e.g., *gabh*, the

tongue and the lips come to rest at their normal position or that of *i* with the explosive effect of oral sound of low intensity. When it is initial, e.g., *bha*, the labial hiss precedes the vocal sound which begins with the weak effect while the lips are going to the vowel position.

94. *Ph* or *f* is rarely found in any place but the initial one, e.g., *far*, *phòs*. It differs from *bh* in having the vowels adjacent to it begun or ended with the strong effect and in its labial hiss being more intense on account of the stronger pressure of breath.

95. **Labials, complete contact.**—If the labial process for *bh* and *ph* be carried out in all their details, but substituting complete for partial contact, the effects produced are those represented by *p* and *b*, e.g., *poll*, *beul*. When *b* follows *m*, e.g., *umbaidh*, in general the vocal chords are not relaxed during the contact, and, if a vowel follow, they are not relaxed at all. In this respect they act similarly to what takes place for English *b* in all conditions.

96. **Nasal Labials.**—With the lips in position for *b* and the velum pendulum in its normal position, vocal sound is heard through the nose and the effect is that represented by *m*. See M, figs. 15, 16.

M. M.'s Sc. of L., p. 161, fig. 25. Stew. Gael. Gram., p. 12.

97. When *m* is flanked by vowels, e.g., *caman*, the first is made progressive in its timbre by the lips moving to *b* position; the velum pendulum falls at the instant in which the lips meet and the vocal sound continues through the nose; this lasts a short interval: the lips open and a progressive sound is caused, modified by the circumstance of the velum pendulum being down—for it is rarely drawn up during the utterance of a vowel following *m* or *n*. When *m* is initial, e.g., *mór*, the vocal chords take their position immediately the lips meet. When it is final, e.g., *cum*,

the vocal chords relax with the lips and an explosive effect of oral sound of low intensity follows.

98. The position of the tongue which is free during the movements of the lips determines the timbre of the vocal sound and it is recognised as that of *a* or *i*.

In fact, all quick progressive timbres caused by the motion of the tongue through the region of the lower vowels are recognised as *a*, while those through the region of the higher vowels are recognised as *i*. M. M.'s Sc. of L., p. 162, note 71.

99. In the case of all the labials the position of the tongue in the mouth modifies the sound effects produced by the lips at the time; and though the difference felt is but slight, it is distinguishable, and has even been acknowledged in the orthography of the language—for instance, *ionna* is not spelt *ime*, nor *imich*, *ionnich*, because in the case of *m* flanked by *o* and *a* the tongue is in a low position, while in the opposite case it is in the higher region. But these distinctions are not essential, because no universal regard is paid to them, and a person saying *ionnich* for *imich* could hardly be accused of mispronunciation.

Stewart's Gaelic Grammar p. 10.—When Dr. Stewart says such a Gaelic consonant is like such an English one, the word “like” must not be interpreted as “exactly equivalent.” There are few cases in which any Gaelic consonant is exactly equal to an English one.

B.—It were better to say that *bh* passed into *w* in *dabhach*, *abhag*. Apply same remarks to M—*mh*. C.—See note (o) and refer to paragraph 69 of Phonetics. G (5).—It is scarcely correct to say *gh* is often quiescent in *rioh*, *fuigheall*. In general it is sounded. T (2).—English “ch” is a compound whereas *t*, as in *tinn*, *caillte* is not. Refer to par. 100 phon. D (2).—English “j” is also a compound, whereas *d*, as in *diu*, is not. Refer to par. 100 phon. D (3), note (r).—Refer to par. 76 phon. for a refutation of the view held by Stewart. D (5).—It is scarcely correct to say *dh*, as in *faidh*, *bualadh*, is silent. S (3).—H in *shlanuich*, *shnuimh* is as markedly pronounced as in *shrann*. See par. 90 phon. S (5).—“It is customary to give (5) its broad sound in the beginning of a word when the former word ends with *r*, in which case *r* also has its broad sound as *chuir sinn*, *air son*.” To what extent this custom prevails, the writer is not aware; but that it is not prevalent may be safely affirmed. *Air*

has usually the *r* sounded small in all cases. So with *cuir*. In fact, *cur*, the verbal noun, is often sounded *cuir*, i.e., with the small *r* when it should be the broad one. But *leirsinn* is very frequently pronounced *leirsainn*; and *c'ar son* always for *co air son*. L (3).—It does not seem that many persons sound the *l* of *dhlu* as stated. See par. 124 phon., where it is given as L (1). R (1).—The reader is referred to par. 89 phon. The distinctions between the different *r*'s are minute and scarcely discernible by any but a Gaelic ear. Stewart p. 13. The rule that "in all other situations they have their aspirated sound," is open to question as a general rule.

100. **Some English letters.**—The sound represented by *w* in the English word "war" consists of the progressive effect on the timbre of vocal sound caused by a receding motion of the lips from *q* or *u* position. The opposite effect is that represented by *w* in the word "now"—i.e., an approaching motion of the lips to *q* or *u* position. In the word "now," as Englishmen pronounce it, *w* is the contracting of the lips over the vowel *a*. As Scotchmen pronounce it, the vowel is *a* or *v*.

Wh, as pronounced by Scotchmen in general, consists in the tongue while in position for *ch*, the back lingual partial contact consonant, and the lips about the position for *q* relaxing simultaneously and producing a compound progressive effect on vocal sound.

Q is the complete contact correspondent of *chw* (*wh*), the partial contact consonant. Its elements are *ew*.

It is suggestive to note that *wh* has *eu* as its correspondent in some Gaelic words, e.g., "whip," *cuip*; "whist," *cuist*; "wheel," *tuibhle*; *mac Cuilcein*, anglicised "Wilkie"; "Whigs," Gaelicised *cuiyse*.

M. M.'s Sc. of L., p. 149, fig. 19.

Ch and *j* are compounded of *t* and *s* and *d* and *z*, respectively, at the high position. *Ts* and *dz* at a low position are never used initially in English. The tongue moves from complete contact, lingers on the corresponding partial contact sound and therefrom gives way with an

explosive effect. It is erroneous, therefore, to say they are simple articulations. *Ch* is equivalent to *ds* in the Gaelic word *buidseach*—exactly the opposite of *sd* in the word *eisd*; i.e., in the former case the partial contact sound follows the complete contact, whereas, in the latter, the complete contact follows the partial contact sound. The borrowed words *seirdsein*, from “serjeant,” *ciùsein* from “kitchen,” show how a Gaelic ear appreciates and Gaelic orthography represents the composition of English *ch* and *j*.

The *c*, *g*, *t*, *d*, *s* and *z*, of “care, get, nature, odious, pressure, vision,” &c., are produced by the tongue at a high position; but the fact is generally ignored or mis-stated.

TERMINOLOGY.

101. **Vowel terms.**—The specific terms applied to the vowel classes are scarcely satisfactory. Gaelic grammarians divide the vowels into two classes, the “broad” and the “small,” the former embracing *o*, *a*, *u*, and the latter *e*, *i*. The sonorous notes are named “broad,” the piercing ones “small.” Although these terms are not amiss, those are best which are indicative of physiological position.

Vowels should, therefore, be divided into two classes as follows :

Low.....*o*, *A*, *a*, *q*, *u*.

High*E*, *i*, *æ*, *I*.

They may be further subdivided in reference to the agency which adds a characteristic as follows :

Low { Simple.....*A*, *a*, *v*.
(Labialised.....*o*, *q*, *u*.

A special name may be given to *a* and *i* because of their peculiar uses, namely, the...Low rest vowel...*a*...the High rest vowel...*i*.

Vowels which are nasalised may be so termed, i.e., Nasalised.

As individuals, they should be named according to their sounds.

102. **Consonant terms.**—Terms are applied to consonants as classes and individuals. As classes they are named in reference (1) to the position at which they are produced; (2) the method in which they are produced; (3) the force with which they are produced; (4) the principal agent in their production; (5) the particular part of the agent referred to; and (6) the particular circumstance accompanying their production, which distinguishes them.

(1) The terms “low” and “high” are meant to supplant “broad” and “small.” (2) The terms “complete contact” and “partial contact” are meant to take the place of “explosive” and “continuant,” “checks of breath” and “emissions of breath.” (3) The terms “weak” and “strong” refer to the force with which the breath is impelled, and are meant to take the place of “sonant” and “surd,” which are but partially applicable to Gaelic. (4) The term “lingual” embraces all the consonantal effects produced by the agency of the tongue. The term “labial” embraces those produced by the agency of the lips. (5) The term “back” refers to the back part of the tongue, “front” to the forepart of the tongue, and “side” to the sides of the tongue and their disposition in the production of *l*. (6) The term “trill” refers to the vibratory characteristic of *r*; “nasal” to the condition of the nasal channel being open; and “flat” and “sharp” to the use of the forepart of the tongue broadly and pointedly, respectively.

103. The following table is based on the preceding classification. The phonotypes are those by which each consonant will be indicated in the sequel. The names are those by which they may be named in spoken language.

TABLE OF CONSONANTS—LOW.

CLASSES.	COMPLETE CONTACT.				PARTIAL CONTACT.			
	WEAK.		STRONG.		WEAK.		STRONG.	
	Phono- types	Names	EXAMPLES.	Phono- types	Names	EXAMPLES.	Phono- types	Names
Back Linguals	G	ga	gabh, rag, sagart	C	ca	cas, sac, tacan	ɔ	gha
Front „	D	da	do, rud, fada	T	ta	tom, lot, botul	S	sa
Simple Labials	B	ba	bog, gob, stabull	P	pa	pos, sop, tapadh	V	bba
Nasal Labial	M	ma	mor, tom, caman					
Back Nasal	Ng	ang	long, teanga					
FLAT.				SHARP.				
Side Lingual	LL	lla	lamb, toll, cala	‘LL’	hlia	thlachd, shloc	L	la
Trill Lingual	RR	rta	ramh, tur, corag	‘RR’	hrra	shruth, thrath	R	ra
Nasal Lingual	NN	nna	naire, ann, annam				N	na
								hua
								shnàth, thnu

NOTE.—The Nasal Labial and Back Nasal are “complete contact” only so far as the lips and the tongue are concerned; the nasal passage is open. In respect to the tongue, the Nasal Lingual is “complete contact”; but it and the preceding two classes are not classified in reference to contact.

TABLE OF CONSONANTS—HIGH.

CLASSES.	COMPLETE CONTACT.				PARTIAL CONTACT.			
	WEAK.		STRONG.		WEAK.		STRONG.	
	Phono- types	Names	EXAMPLES.	Phono- types	Names	EXAMPLES.	Phono- types	Names
Back Linguals	G	gi	geum, thig, aige	C	ci	ceum, taic, reicidh	O	chi
Front „	D	di	dean, goid, idir	T	ti	tinn, duit, tuitidh	S	si
Simple Labials	B	bi	bith, guib, caibe	P	pi	pige, cuip, suipeir	F	phi
Nasal Labial	M	mi	mir, im, imeachd					
Back Nasal	Ng	ing	luing, aingeal					
	FLAT.				SHARP.			
Side Lingual	LL	lli	lion, pill, tillidh		L	lion mi e, sil, dile	·L·	shliochd
Trill Lingual	RR	rri	righ, oirre		R	mo righ, fir, firinn	·R·	shrian
Nasal Lingual	NN	nni	nigh, tinn, inneal		N	mo neart, sin, fine	·N·	shuionh

NOTE.—The Nasal Labial and Back Nasal are “complete contact” only so far as the lips and the tongue are concerned; the nasal passage is open. In respect to the tongue, the Nasal Lingual is “complete contact”; but it and the preceding two classes are not classified in reference to contact. The above phonotypes are capitals to distinguish them from the small capitals of the former table.

The labial contraction and expansion may be represented by *w* and *w*, low and high respectively, and may be named *wa* and *wi*.

Although labials are included under "High" consonants it, as has already been explained, is not essential so to regard them. But it is advantageous to be able, by means of a phonotype, to refer to the special circumstance attending labials conjoined to high vowels.

Here it may be stated that the English *g, d, z, b, v*, are more sonant than their Gaelic correspondents; and that the Gaelic *c, g; t, d; s; p, b; ph, bh* are more forcible than their English correspondents. Gaelic *g, d, s, b, bh* agree closely to English *c, t, s, p, f*. In English there are no equivalents to Gaelic *c, t, s; p*. Occasionally, Gaelic speakers are heard, who sound their *g, b, d, gh, bh, s*, with the sonancy of their English correspondents; but the practice, as far as the writer is aware, is only a personal peculiarity and not one extensively used or whose *locule* can be determined so as to warrant its being regarded as dialectic.

IV. THE GROUPING OF THE SOUNDS OF SPEECH.

104. **Words and Syllables.**—The simple and transferable elements of thought are the ideas ; and their correspondents in speech are the words. A word is a group of sounds of which one or more are vowels. Each vowel by itself or with its concomitant initial and final consonants constitutes a syllable. Words of two and three syllables are most numerous. Those of more than three syllables are comparatively few.

105. **The position of the accent.**—The accent is always on the first syllable of the word, and the sounds are uttered consecutively without a pause to the end. When words are grouped in a sentence to express a complete thought they are uttered without a pause—to the end, if it be a simple sentence—if it be a complex one, pauses may occur at the ends of the clauses or phrases. In a sentence, clause or phrase, the accent is generally found on the first syllable of the corporal words (nouns, adjectives, pronouns, and verbs), the formational words (particles, prepositions, and conjunctions) in general being unaccented.

VOWELS.

106. **Vowels coming together.**—Two vowels sometimes follow each other without the intervention of a consonant. In some cases the vocal chords are retained at tension, and the breath continues to flow during the passage of the tongue or lips, or of the tongue and lips, to the next

vowel position. The timbre of the Vocal sound during the motion of the organs is of a progressive quality. The movement being quickly done, the combination is known by the first and last elements, either of which may be long or short as required.

M. M.'s Sc. of L., p. 134, last line, p. 134, ls. 1 to 11.

107. In other cases the vocal chords are retained at tension, the breath is withheld so as to end the first vowel, a short interval of no sound intervenes and then the breath is let on to begin the vowel which is to follow.

108. In other cases, and in the pronunciation of some people only, the first vowel is ended and the following one begun with the strong effect.

109. **Diphthongs.**—The following words give examples of the first class in which the vowels glide into one another. Par. 106.

110.	Long.	Short.	Components.
	<i>dòimhne</i>	<i>troimh</i>	o and i.
	<i>dàimh</i>	<i>daimh</i>	A and i.
	<i>claidh</i>	<i>tigh</i>	v and i.
	<i>cùimhne</i>	<i>cuip</i>	u and i.

111. Combinations with q are rarely used. Generally the first element is the accented one and the longest. In the practice of some people, however, the second element receives most recognition, as may be illustrated by the rhymes found in Neil MacLeod's "Clarsach an doire," where such words as *chaoidh* rhyme with *fhìn*.

112.	Long.	Short.	Components.
	<i>ceò</i>	<i>deothal</i>	E and o.
	<i>teó</i>	<i>feadh</i>	æ and q.
	<i>clìh</i>	<i>diugh</i>	i and u.

113. The long combinations are long on the second element and short on the first. The short combinations

are short on both elements. But in both cases the accent is on the second element.

114. In the pronunciation of many people the E element of *ceò* and such words is omitted. Others absurdly follow the same practice in pronouncing *beò*, etc. It would not do, however, to say *bo*; so they pronounce it Bɔ̃oo. This practice of giving the low vowels the sound of ɔ̃ is not uncommon when they occur at the beginning of a word, e.g., *iolair*, = ɔ̃ULLERa; *cala* = ɔ̃ALLa; *Eoin* (John) = EooN and ɔ̃ooN; *Iain* = I'EN. The second element of the vowel sounds in the pronunciation of *feadh* by many people is v. In the practice of others there is only one vowel sound and the word is pronounced Fɛɔ̃. This is probably the purest pronunciation.

115.	Long.	Components.
	<i>cliath</i>	I and a.
	<i>fuar</i>	U and a.

116. These combinations are always long. The second element is generally *a*. Sometimes it is A and v, sounded short of course. Some singers give the preference to the second element when singing these combinations. The genuine Gaelic fashion is to dwell on and give the accent to the first element.

117. *Ia* and *ua* in most instances appear to be modern developments of E or ɛ and o or ɔ respectively, and to have made their way from the north. The northern practice of saying *ia* when southerners would say E or ɛ has got only a partial footing in written Gaelic, but at present it is aggressive. *Ua* appears to be stationary. When these combinations precede *gh* there is a tendency to pronounce the second element v.

118.	Examples.	Components.
	<i>Fann, thall, samhradh</i>	A and w.
	<i>Fonn, toll, lom</i>	a or v and w.

Ceann, geall, geamhradhE and *w*.

Fionn, siolla, diombach ...I and *w* or U.

119. The second element in the above vowel sounds represented by *w* is a contraction of the lips while the tongue remains at its position for the first element of the combination. In some cases, in the fourth example, the tongue shifts to U. The practice of imposing a second element on the vowel represented in the written form of the word is not general over the whole of the Gaelic speaking parts of the Highlands, particularly the south of Argyleshire. The people of other parts of the same shire pronounce the *o* of *lom*, *tom*, etc., simply *q*. Those who do not add the labial contraction linger longer than usual on the following consonant when the word is a monosyllable. In the districts of Cantire and Cowal the practice of adding the labial contraction is not followed, and the *mh* of such words as *samhradh* is pronounced like *v*. The northern practice is at present aggressive.

120. **Triphthongs.**—In the slow measured speech of some people there is in certain words a gliding through three vowel sounds, as for example, *coin*, *ciuil*, *fuaim*, *fiaire*, *EOi*, *IUI*, *Uai*, and *iai* respectively. But the last element is best regarded as a property of the consonant following as has already been alluded to.

121. **Vowels separated by the weak impulse.**—Words such as *màthair*, *làthair*, *mùthadh*, etc., afford examples of the second class. The *th* is equivalent to a short cessation of the breath during the retention of the vocal chords in their position for producing the next sound. Par. 107.

122. **Vowels separated by the strong impulse.**—Words such as *athair*, *cothaich*, *cathair*, etc., afford examples of the third class; but only in the pronunciation of some. The *th* is equivalent to *h* or the strong vocal effect between

the vowels. This would seem to be the least decayed practice; for the initial inflection of words beginning with *t* is *th* sounded *h*. But the generality of people sound them in the same manner as those of the preceding class, but short. Par. 108.

Stewart's Gael. Gram., p. 20. It must be understood that what Dr Stewart has termed "diphthongs" is two written vowels in juxtaposition, and has no reference to their pronunciation. The value of each simple vowel, according to Dr Stewart's arrangement, having already been fixed by a phonetic equivalent, it is unnecessary to tabulate the diphthongs given by him alongside of their phonetic equivalents. It may be profitable, however, here to append some notes on his examples.

(1) *ai*. It is questionable whether it is correct to give *faidh* and *claidheamh* under this heading. It would be better to classify only those diphthongs occurring before labials under this head, because the *dh* of *faidh* and *claidheamh* = ɣ. They should come under class (3). So also *baigh*, *aite*, *claiqeann*, *maide*, etc.

(1) *ea*. The purest pronunciation of the words given as examples is perhaps that in which the *a* is not sounded, as is the custom in the south of Argyleshire. There is another pronunciation referred to in Phono, par. 118, of which *w* is the second element, see *ceann*, etc.

(4) *ea*. Here again the predilection for *a* crops up. The examples given are not always so sounded. Even Stewart himself puts the accent mark on the *e* of *ceard*. The root vowel is *e* in most cases where *ea* is found; and that pronunciation which gives it prominence is surely the purest and that which it were best to cultivate. This tendency towards mouth-filling sounds prevails in English dialects also.

(1) *ei*. It were better to class *meidh* under (3), and confine (1) to those diphthongs coming before labial consonants only. The number of words which could be classified under (1) is very small indeed.

(2) *ei*. The *dh* and *gh* in the words given as examples = ɣ and are consonantal. (2) may be included in (4).

(1) *eo*. Stewart is wrong here, for the first vowel is generally (1) *e* short. But some sound *beò*, etc., with (2) *o*, in which case the *e* is (2) *e* short.

(2) *eo*. *Leomhann* is perhaps most frequently pronounced with (2) *o*; and many prefer to spell it *leoghann*. But it is not the case that *e* always loses its sound after linguals and palatals as will be heard in the pronunciation of long syllables such as *leo*, *ceo*, *deo*, in parts of Argyleshire. In short syllables, such as *deoch*, such is generally the case however.

(1) *eu*. In many parts *beul*, *sgeul*, *eun*, *feur*, *neul*, *meud*, and others are pronounced with (1) *e*.

ia. *Cia* is sometimes sounded with (2) *c* short. *Iad* is generally EED and frequently AAD.

(1) *io*. It were better to arrange all the examples given under one heading, that of (2) *io*, because the distinctions made are not general and are not those which should be cultivated. There is another common pronunciation of *io*, namely, *iu* as in *ionnsuidh*, *diombach*, *fionn*, etc. See Phon., par. 118.

(2) *iu*. The *i* does not always lose its sound after linguals and palatals, particularly in long syllables, but it generally does in short ones.

(1) *oi*. The examples were best confined to those where a labial follows, and *oigh*, *troigh* included under (3) on grounds already adduced.

(2) *oi*. *Foid* is sometimes FOD.

Ua. The vowels are not always equally long. In singing these combinations, the *a* is very shortly dwelt on; although some modern singers render the *u* short and the *a* long: but this is objectionable.

(1) *ui*. The examples were best confined to those where a labial follows, and those given included under (2).

(1) *coi*. One class might serve for these, namely (2)—(1) for the reasons before stated, and (3) because the examples given are generally sounded *eo* (2) *i*.

iu. Subject to the remarks applied to (2) *iu*.

uai. *Cruaidh* would be better under (3), and (2) confined to those where a labial follows. Even the *th* of *luaithe* often = *ð*, the word being pronounced *luaighe*.

CONSONANTS.

123. **Consonants coming together in words.**—Consonants which have little Vocal sound are rarely found united in words. The commonest combinations are with *l*, *n*, and *r*, which are principally vocal sound, and with *s* which, although principally lingual sound, is easily heard.

124. **Double Consonants.**—These combinations are as follows,

C	with	(1)	RR	and	(2)	R	<i>crom</i> , <i>crith</i> .
G	...	...	...	...	...	...	<i>gràdh</i> , <i>grinn</i> .
P	...	...	...	...	...	...	<i>pron</i> , <i>preas</i> .
B	...	...	...	...	...	...	<i>bròn</i> , <i>bris</i> .
D	...	...	...	...	...	...	<i>chrom</i> , <i>chrith</i> .

Θ	with	(1)	RR	and	(2)	R	<i>ghràdh, ghrinn.</i>
F	...	...	...	...	...	...	<i>phronn, phreas, frith.</i>
V	...	...	...	...	...	...	<i>bhròn, bhris.</i>
T	...	...	...	...	...	...	<i>trom, tric.</i>
D	...	...	...	...	...	...	<i>droch, dris.</i>
C	with	(1)	LL	and	(2)	L	<i>clag, clis.</i>
G	...	...	...	...	...	...	<i>glawdh, glic.</i>
P	...	...	...	...	...	...	<i>ploc, pliodairt.</i>
B	...	...	...	...	...	...	<i>blas, bleideil.</i>
Ɔ	...	...	...	...	...	...	<i>chlaidh, chli.</i>
Ɖ	...	...	...	...	...	...	<i>ghlaidh, ghlic.</i>
F	...	...	...	...	...	...	<i>phloc, phliodairt.</i>
V	...	...	...	...	...	...	<i>bhlàth, bhleideil.</i>
T	...	...	...	...	...	...	<i>tlachd, tligheach, t-slighe.</i>
D	...	...	...	...	...	...	<i>dlùth, dleasnas.</i>
C	with	(1)	N	and	(2)	N	<i>cnàmh, cneas.</i>
G	...	...	...	...	...	...	<i>gnàth, gnìomh.</i>
Ɔ	...	...	...	...	...	...	<i>chnàmh, chneas.</i>
Ɖ	...	...	...	...	...	...	<i>ghnàth, ghnìomh.</i>
T	...	...	...	...	...	...	<i>tnù.</i>
M	...	...	...	...	...	...	<i>mnathan.</i>

It is the common practice to pronounce the *n*'s of the preceding examples like *r*. But the educated Gael of the last generation read his *n*'s as *n*'s in all cases ; and many of the present generation conform to this practice still. Nasality attaches to the vowel which follows whether the pronunciation be *n* or *r*.

RR	and	LL	with	C	<i>dearc, olc.</i>
„	...	„	...	G	<i>dearg, dealg.</i>
„	...	„	...	P	<i>corp, calpa.</i>
„	...	„	...	B	<i>cearbach, sgolb.</i>
„	...	„	...	T	<i>feart, falt.</i>
„	...	„	...	D	<i>àrd, calldach.</i>

RR	and	LL	with	Ð	<i>dorcha.</i>
„	...	„	...	Ð	<i>morghath.</i>
„	...	„	...	V	<i>dearbh, falbh.</i>
„	...	„	...	S	<i>dèarsadh, feallsanachd.</i>
„	...	„	...	NN	<i>bearn.</i>
„	...	„	...	RR	<i>dealradh.</i>
„	...	„	...	LL	<i>tàrluidh.</i>
„	...	„	...	M	<i>orm, calma.</i>
R	and	L	with	C	<i>scirc, uile.</i>
„	...	„	...	G	<i>fairge, seilg.</i>
„	...	„	...	P	<i>cuirp, Ailpean.</i>
„	...	„	...	B	<i>fuirbidh, sgilb.</i>
„	...	„	...	T	<i>mairt.</i>
„	...	„	...	D	<i>àird.</i>
„	...	„	...	Ð	<i>duirche.</i>
„	...	„	...	Ð	<i>uirghioll.</i>
„	...	„	...	V	<i>doirbh, cuilbhear.</i>
„	...	„	...	S	<i>tiàrseach.</i>
„	...	„	...	NN	<i>dùirn, fàilnich.</i>
„	...	„	...	LL	<i>birlinn.</i>
„	...	„	...	M	<i>stòirm, ailm.</i>
		LL	with	T	<i>fuilt.</i>
		„	...	D	<i>coilltean.</i>
		„	...	S	<i>soillse.</i>
		NN	with	D	<i>sunnd.</i>
		„	...	S	<i>annsa.</i>
		N	with	M	<i>anna.</i>
		Ng	with	G	<i>teanga.</i>
		M	with	B	<i>umbaidh, umpa.</i>
		NN	with	D	<i>innte.</i>
		„	...	S	<i>innseadh.</i>
		N	with	M	<i>ainm.</i>
		Ng	with	G	<i>luingeas.</i>
		M	with	B	<i>uimpe, impich.</i>

S	with	G	<i>sgàth.</i>
,,	...	B	<i>spad.</i>
,,	...	D	<i>stàth.</i>
,,	...	RR	<i>srath.</i>
,,	...	LL	<i>slàn.</i>
,,	...	N	<i>snàmh.</i>
,,	...	M	<i>smachd.</i>
,,	...	G	<i>sgéith.</i>
,,	...	B	<i>spéis.</i>
,,	...	D	<i>steidh.</i>
,,	...	R	<i>srìan.</i>
,,	...	M	<i>smèid.</i>
S	with	LL	<i>sliochd.</i>
,,	...	NN	<i>snìomh.</i>
S	with	G	<i>fasgadh.</i>
,,	...	B	<i>casbhig.</i>
,,	...	D	<i>fasdadh.</i>
S	with	G	<i>uisge.</i>
,,	...	B	<i>isbeann.</i>
,,	...	D	<i>éisd.</i>
,,	...	N	<i>aisnean.</i>

o preceding its correspondent complete contact c, *uchd, lochdan.*

125. In combinations having *n*, *l*, or *r* as their final element, the effect of the first articulation is felt in the initial progression of their Vocal sound. In combinations having *n*, *l*, or *r* as their leading element, the effect of the second articulation is felt in the second progression of their Vocal sound.

126. The practice which most prevails in the pronunciation of these latter combinations, e.g., *dearc, dearg, dealg, dealbh, dearbh, urchair, talm, seirc, deirg, seilg, ailm, airm, ainm, anna, uirgheal, cainbe, earball, calpa*, etc., consists in a short *a* or *i* vowel between the *l*, *n*, or *r* and the following consonant except *c*, between which and the *l* or *r* a short *o* or

O occurs, and *t* between which and the *r* a short *s* or *S* intervenes.

T or *d* preceding *s* or *z*, respectively, would be distinguishable by the progressive effect leading to *s* from complete contact to partial contact. But they would not be as distinguishable at a distance as those combinations in which *s* is placed first. Combinations with *s* are not heard at long distances, because the loudest Lingual or Labial sound is weak in volume compared to Vocal sound, and unless the effect of *s* is heard on Vocal sound it cannot be well heard. This will be made apparent by listening to street calls, say, "three-ha'-pence the stone," which is heard as "three hapen-the-tone." The intervals of time for the *s*'s are appreciated, but no hiss is heard because of the distance. For the same reason *c* after *ch* is not heard far. Triple combinations of which *s* is not a constituent would be very indistinct.

127. When two consonants come between two vowels the effect is appreciated by the progression with which the first vowel ends and that with which the second vowel begins.

128. **Triple Consonants.**—Three consonants combine as follows,

s	and	GRR	as	<i>sgrath</i> , <i>sgrob</i> .
,,	...	BRR	...	<i>sprochd</i> , <i>sbruileach</i> .
,,	...	DRR	...	<i>strac</i> , <i>strup</i> .
,,	...	GLL	...	<i>sglumh</i> .
,,	...	ELL	...	<i>splaidse</i> .
,,	...	GR	...	<i>sgread</i> , <i>sgriob</i> .
,,	...	BR	...	<i>spread</i> , <i>spreidh</i> .
,,	...	DR	...	<i>strìth</i> .
,,	...	GL	...	<i>sglèd</i> .
,,	...	BL	...	<i>spleuc</i> .

129. They are always at the beginning of accented syllables.

130. **Consonants coming together in phrases, &c.** In words, consonants which do not readily blend into easy compounds are not frequently found in juxtaposition.

Stewart's Gael. Gram., page 25, 26.

The exigencies of composition, however, bring into con-

tact final and initial consonants which do not readily combine. But in groups of words which recur with great frequency, the tendency is to smooth down difficulties; and hence, idiomatic and other phrases are generally free of awkward combinations.

EVOLUTION.

131. **Causes of evolution.**—The evolution of the sounds of speech is due to imperfect conception and imitation of the sounds heard, to the tendency to speak with the least effort compatible with the intelligibility of the sounds, and the desire for rhythmical effect. To the first cause may be assigned the principal dialectic differences of pronunciation, particularly of the vowels. But to deal satisfactorily with these would require a wide knowledge of local peculiarities, an elaborate system of representation and *viva voce* exemplification; and it is not proposed to enter on the task here.

132. These tendencies manifest themselves in sounds coming in contact accommodating themselves to each other to make their utterance easy, the substitution of partial contact for complete contact consonants, the disuse of sounds, syllables and words, and the preference for the recurrence of the accent every second or third syllable.

133. Owing to this evolution taking place at different rates of speed in different localities and among different classes, words and phrases are found at different stages of growth in the current styles of speech; and it is to these reference is now to be made.

134. **Transposition.**—Sounds are subject to transposition as the following examples found in current practice show, namely, *foislich*, *foillsich*; *uaisle*, *uailse*; *eislinn*, *eilsinn*; *amhaire*, *amhraic*, &c.; and perhaps *arn*, or *ar n*-, “our,” is *nar*, as pronounced in the north, transposed.

135. Words in phrases are subject to transposition as follows. *Do ionnsuidh, dha t' ionnsuidh, adh ionnsuidh* (commonly spelt *a dh' ionnsuidh*) and *adh radh*, sometimes erroneously *a ghradh* for *do radh*. As the result of unconscious analogy some say *do dh' ionnsuidh*. *Adh* becomes *a* before consonants as *a chum = adh chum = do chum*. *A* incorporates with words following beginning with a vowel as *am fear a's fearr = am fear a (do) is fearr*. *Bho an do fhalbh* becomes with some *bho 'n d' fhalbh*, the *d* preserved pure through the influence of the *n*; with others *bho 'n adh fhalbh*, the *n* caught up by the vowels preceding; *bho 'n a chaidh*, the *dh* lost through the influence of the partial contact sound following. *Ann do luimh, ann do shuil*, become *ann ad laimh, ann ad shuil, ann ad aghaidh*, &c., &c.

136. **The effect of one sound on another.**—The article affords a number of varieties of development.

An òigh. Here *n* is N before a vowel. So with *r*.

An cù. Here *n* is Ng through the influence of *c* following. So with *g*.

An duine. Here *n* is NN through the influence of *d* following. So with *t, l, s, n*.

An dè. Here *n* is NN through the influence of high *d* following. So with *t, l, s, n*.

Am bard. Here *n* is changed to M through the influence of *b* following.

Air a' chrann. Here *n* disappears before a partial contact sound.

Do 'n chrann. Here *n* is incorporated with the preceding word ending with a vowel.

An iall. Here *n* is NN through the influence of the high vowel following. But this practice is not general. Some sound *n* as N. So also with *cha 'n 'eil* in which *n* is sounded both ways, that is to say *n* belongs to *cha = chan*, in the one case, and to *eil = neil* in the other.

Anns an sgoil is sometimes *anns a' sgoil*,—the *n* disappearing before *s*. *Nam beann* in Skye is frequently pronounced *nameann*, *b* disappearing after *m*. *An diugh* in Lewis is frequently pronounced *aniugh*, *d* disappearing after *n*.

Aon—*n*=*N*, e.g., *aon chrann*, *aon mhac*, &c., but *aon*, *duine*—*NN*, *aon toll*—*NN*, *aon lugh*—*NN*, *LL*, *aon ramh*—*N*, *R*, *aon namhaid*—*N*, *N*, *aon tir*—*N*, *aon leac*—*N*, *LL*, *aon righ*—*N*, *R*, *aon nead*—*NN*, for both, *aon iuchair*—*N*, *aon saor*—*N*, *aon sealladh*—*N*.

Cha bhuin, *cha ghabh*, *bu choir*, *bu mhor*, &c., but *cha dean*, *cha tog*, *bu dual*, &c. [Query.—Does the circumstance of *d*, *t*, &c., remaining uninflected after *cha* and *bu* point to the existence of an *n* after these at one time?] *Clann Chamroin*, but *Clann Domhnuill*; *Sìol Chaluim*, but *Sìol Diarmaid*; *mo nighean bheag*, *mo chaileag dhonn*, but *mo nighean donn*; *is aithne dhomh*, but *is ion domh*, *is nar domh*, *is fearr domh*, *is dual domh*, *is fhios domh*. The last four examples are not, however, general.

137. **Partial decay of consonants.**—*Agus* is frequently pronounced *aghus*; *deatach*, *deuthach*; *domh*, *dhomh* and *dhom*; *dìom*, *dhiom*; and *robh*, *ro*; *sìbhse*, *sìse*, &c.; but the number of examples of this kind displaying evolution from a complete contact to a partial contact sound in current practice is very limited.

138. **Total decay of consonants.**—Evolution from a partial contact sound to a partial and complete abandonment of sound is very common and, on that account, the current practice of speech is in advance of the spelling; and it is still moving in the same direction. *Tha fios agam*, *tha fhios agam*, and *tha fhios a'm*; *feagal*, *cagal*; *furruinn*, *urruinn*; *fiolaire*, *iolaire*; *faithuich*, *aithuich*; *faileas*, *aileas*; &c. *Gh* is often silent in *aghaidh*; *bh* in *sabhull*; *mh* in *còmhla*; *dh* in *adhar*; *th* in *athair*; *n* before *s* as in *inuseadh*; *n* before *r* as in *cunradh*; *n* before *g* as in *ceangal*, in which

case *g* goes also; *p* and *b* after *m* as *impis*, *umbaidh*, &c. *Mh* and *bh* after a vowel are often pronounced like *w* as in *samhradh*, *abhag*, *amharus*, &c. *Amhghar* = AAḡARR and AVAḡARR.

139. **Incorporation of words.**—Initial *th* disappears after a particle ending with a vowel, as *an d' thug*. Initial *fh*, sounded *h*, disappears in the same circumstances, as *an d' fhuair* for *an do fhuair*, ANNDUG, ANNDUaR.

140. A word ending in a vowel attaches itself to another beginning with a vowel as *t' athair* for *to athair* = *do athair*; *gu 'n* for *gu an*, &c.

141. Incorporating a number of these developments in one phrase we get *gu 'n d' thug* = GUNNDUG, for *gu an do thug*; *gu 'm b' eiginn* = GUMBEGINN, for *gu am bu eiginn*.

142. Words lose their initial vowel so that the final consonant may incorporate with the next word beginning with a vowel, as *ag an* becomes '*g an* = *gan*; *ann an* becomes '*n an* = *nan*. Here the final *nn* of *ann* changes its character from flat to sharp, NN to N. *Anns an* becomes '*s an* = *san*. *Ag* before consonants (except *r* of *radh*) loses the *g*, as *a' togail*, *a' bualadh*, etc.

143. Words lose their initial vowel so that the final consonant may be attached to the next word. *Is* becomes '*s* before vowels and those consonants and double consonants with which *s* usually combines, *is aithne dhomh*, '*s aithne dhomh*; *is gasda*, '*s gasda*; *is lughach*, '*s lughach*; *is grinn*, '*s grinn*; *is tric*, '*s tric*, etc.

144. **Loss of Words and Syllables.**—Words drop out of use, sometimes leaving indications of their past existence, at other times none, as *a chum*, *chum*; *a bharr*, *bharr*; *chrath e a dhorn*, *chrath e 'dhorn*; at one time *do chum*, *de bharr*, *do chrath*, etc. *Ag* after becoming *a'* drops out of use after a word ending in a vowel before a word beginning with a consonant, as *tha mi 'dol* for *tha mi a' dol* or *ag dol*.

145. In words of more than one syllable, whose vowels are not separated by a spoken consonant, when the second vowel disappears, the first is lengthened, e.g., *criùhe* = cRi'a becomes *criùh* = cRii; *leòha* = LEo'a becomes *leò* = LEOO; *lùtha* = LLa'a becomes *lù* = LLAA. The practice of dropping a final vowel is a common device in poetry to meet the exigencies of the measure, e.g.:

“*Is suarach an deise seach seasamhach an criùh*” (*criùhe*).

“*Rinn fairneart an sgìrseadh lù dhuilheach an òig*” (*òige*).

146. The same thing takes place, sometimes, when a word ending in a vowel is incorporated with another beginning in a vowel, e.g., *eo aca* = cQ ACA becomes *còca* = COOca; *ce aca* = C'Ā ACA becomes CEECA.

147. **Accent of Compound words.**—Words expressing an expansion of thought by the addition of an unaccented prefix to the principal element of the compound have their accent thus thrown back, when originated. So also compound words accented on the second element. But the prevailing tendency to put the accent on the first syllable gradually overcomes. For that reason *co-dhùnnadh* is sometimes pronounced *codhunnadh*; *comh-thionail*, *coimhthionail*; *fìor-ghlan*, *fìorghlan*; *leth-bhodach*, *lethbhadach*; *eo aca*, *còca*; *ce aca*, *cèca*, but not *co dhùnn*, which becomes *cùnn*, etc. Compound words after having had their accent placed on the first element, and words expressing an expansion of thought by the addition of an unaccented affix, retain the accent on the first element, while, if of more than two syllables, they tend to develop in the direction of two, and frequently, when of two syllables, in the direction of one, as *comh-stàthach*, *còmhstach*; *mì-mhodhail*, *mìomhail*; *Ban-rìghinn*, *Bànrìghinn* = BA.RiNN; *fogarrach*, *fograch*; *freagarrach*, *freagrach*; *dleasdanas*, *dleasanais*, *dleasnais*; *tlathas*, *tlaths*; *dluthas*, *dlùths*.

148. Phrases are subject to the same influences as words.

The constructive or formational words are generally of one syllable and unaccented, and, when they intervene between the elemental or corporal words, throw the accents further apart. The tendency to bring the accents closer influences their absorption into one another, or the abandonment of one or more of them, or of parts of them.

149. **Extra sounds introduced.**—An extra sound is sometimes introduced in forming a compound, if a partial contact sound follows *n*, *l*, or *r* which does not make a good coalition as, *seann-daíne*, *seann-each*, but *seana-bhean*, *seana-ghinlan*, etc. Somewhat analogous is the practice in some parts of the Highlands in cases such as the following, *do an bhrathair*, generally *do 'n bhrathair*, but sometimes *do 'n a bhrathair*.

150. It is not uncommon to hear *dithis* pronounced *dithist*; *rís* or *rithis*, *rithist*; and *doras*, *dorust*.

V. THE ORTHOGRAPHY CONSIDERED IN ITS RELATIONS TO THE SPOKEN LANGUAGE.

151. **General features.**—The orthography of the Gaelic language does not consistently correspond to the spoken sounds. The letters have not always the same value. Two letters are sometimes used to represent one sound or articulation. Similar sounds are represented in different ways. Eighteen letters are made to fulfil more than double that number of functions. Phonetic evolution is, to a certain extent, recorded graphically. Yet, notwithstanding these circumstances, such is the general consistency of the system that it is easier to learn the reading of Gaelic than that of English.

152. The general features of the system are exemplified in the following list, in which the phonetic symbol is placed opposite its written equivalent.

CONSONANTS.

153. **Spoken and written Consonants compared.**—To distinguish low consonants from high ones the former are flanked, followed or preceded by low vowel letters, and the latter by high vowel letters, which are sometimes sounded, but many times not. This constitutes the Gaelic rule, "*Leathann ri leathann agus cuol ri cuol*," "Broad to broad and small to small." It is contended that there is no necessity for the application of this rule to every case.

Stewart's Gael. Gram., p. 29, iii.

That contention is right, and its adoption in practice can

only be combated on the grounds that a rule without exceptions is easier learned and remembered than one with exceptions, and that the rule having been so long in force, it is best now to retain it in its entirety. The exceptions to the rule are very few. They are *so, sud, tigh, is, e-san; posda, etc.; thogtaidh, etc.*; which should be *seo, siud or siud, taigh, ios, e-san; poisle; thogteadh*; in order to represent properly the values of *s* and *t*.

c is represented by *c* as *co, aca, suc*.

C	...	...	<i>c ... cèr, aice, lic.</i>
G	...	...	<i>g ... gu, togail, og.</i>
G	...	...	<i>g ... gin, claigeann, oig.</i>
Ḡ	...	...	<i>ch ... cha, achaidh, each.</i>
Ḡ	...	...	<i>ch ... chà, cloiche, teich.</i>
Ḡ	...	...	<i>gh ... ghabh, aghaidh, lugh.</i>
Ḡ	...	...	<i>dh ... dhuin, claidh.</i>
Ḡ	...	...	<i>gh ... gheibh, aighean, tigh.</i>
Ḡ	...	...	<i>dh ... dhi, uidh.</i>
P	...	...	<i>p ... pos, foithpe, sop.</i>
P	...	...	<i>p ... pìob, foithpe, cuip.</i>
B	...	...	<i>b ... bas, sabaid, lib.</i>
B	...	...	<i>b ... bi, caibe, luib.</i>
F	...	...	<i>ph ... phos and f as fas.</i>
F	...	...	<i>ph ... phill and f as fios, cifeid.</i>
V	...	...	<i>bh ... bha, gabhail, gabh.</i>
V	...	...	<i>mh ... mhair, sgamhan, rannh.</i>
V	...	...	<i>bh ... bhì, cuibheas, duibh.</i>
V	...	...	<i>mh ... mhios, daimheil, cainh.</i>
T	...	..	<i>t ... tog, tiotannh, lol.</i>
T	...	...	<i>t ... ti, lite, duit.</i>
D	...	...	<i>d ... dan, ludan, rud.</i>
D	...	...	<i>d ... dean, luideag, cuid.</i>
S	...	...	<i>s ... son, càsan, dos.</i>

S	...	...	s ... sin, cùisean, cìs.
LL	...	...	l...ll ... lamh, cal, talach, balla, call.
LL	...	...	l...ll ... lion, tilleadh, pill.
L	...	...	l ... lus mì e, mo lamh.
L	...	...	l ... lean mì e, duilich, sil.
RR	...	...	r...rr ... ràn, car, farran, farum, fhras.
RR	...	...	r...rr ... rìgh, airre.
R	...	...	r ... mò ràn, ruith mì.
R	...	...	r ... mò rìgh, reic mì e, dìreach, fìr.
NN	...	...	n...nn ... namhaid, clannach, gann.
NN	...	...	n...nn ... nìgh, cinneach, cinn.
N	...	...	n ... mò namhaid, canach, fan.
N	...	...	n ... mò nighean, fine, gin.
M	...	...	m ... mathair, caman, com.
M	...	...	m ... mìr, mìne, cuim.
(')	...	...	th ... thog..sh, sholar..fh, fhuair..h-uile, th, thig..sh, shìn..fh, fhein..a h-inntinn.

VOWELS.

154. Spoken and written vowels compared.—

o and oo	...	o&ò ... lot, toit ; gò, glòir.
A ... AA	...	a...à ... gabh, càs, àite.
a	...	a, u, e, ... agam, sìleadh, farum, duine.
Q ... QQ	...	o, ó, ò ... tog, lòn, lòn, mòr, mór.
V ... VV	...	ao, aobhar, a (gh) lugh, a (dh) ladhnan, o (gh) roghainn, u (gh) lugha.
U ... UU	...	u&ù ... rug, rùn.
E ... EE	...	e...è ... leag, dèan, beul.
i	...	i ... againn, namhaid.
Æ ... ÆÆ	...	e, è, é ... feul, fèum, éirich.
I ... II	...	i...ì ... thig, fìor, cìr.

155. There are many other dialectic differences of pronunciation which can only be properly conveyed orally, and some have already been referred to.

Air is invariably pronounced ʔR. *Aithne*, *thainig*, *Mairi* and such like are in some parts pronounced ENa, ʔENIG, MEERi.

INITIAL INFLECTIONS.

156. **Spoken and written initial inflections compared.**—The relation of the written to the spoken language may be further explained by reference to the initial inflections of words. These inflections consist of the substitution of one sound for another in certain cases of the words to which they belong. In some cases, the sounds have a known phonetic relation to each other. In other cases, there is no class relationship. The inflections referred to are exemplified phonetically and according to the current orthography in the following list :—

	Phonetically.	Orthographically.
157.	c takes ɔ as <i>cum e</i> , <i>chum mi e</i> .	
	C ... ɔ ... <i>ceann</i> , <i>mo cheann</i> .	
	G ... ɔ ... <i>gabh e</i> , <i>ghabh mi e</i> .	
	G ... ɔ ... <i>geur</i> , <i>sgian gheur</i> .	
	P ... F ... <i>pos i</i> , <i>phos sinn</i> .	
	P ... F ... <i>peann</i> , <i>mo pheann</i> .	
	B ... V ... <i>buail iad</i> , <i>bhuail mi iad</i> .	
	B ... V ... <i>biorach</i> , <i>suil-bhiorach</i> .	

158. There is in the above list, absolute regularity, viewed both from the phonetic and the orthographic stand point. A complete contact sound is supplanted by its correspondent partial contact sound.

159.	LL takes L as <i>loisy e</i> , <i>loisy mi e</i> .	
	LL ... L ... <i>lean e</i> , <i>lean mi e</i> .	
	NN ... N ... <i>namhaid</i> , <i>mo namhaid</i> .	
	NN ... N ... <i>nigh e</i> , <i>nigh mi e</i> .	
	RR ... R ... <i>ràn</i> , <i>mo ràn</i> .	
	RR ... R ... <i>righ</i> , <i>mo righ</i> .	

160. There is in the preceding list, from the phonetic stand point, absolute regularity. A flat articulation is supplanted by its correspondent sharp articulation. In the current orthography there is no distinction between the flat and the sharp consonants. In the old style of alphabet and in the modern Irish system a dot is placed over the sharp consonants and all those which are now written with *h* after them. The practice of putting the dot over the Roman letters is found in the books of Moses, in some editions of the Bible, in the cases of initial *l*, *n* and *r*. In the early numbers of "The Gael" the editor endeavoured to introduce the practice of putting *h* after the sharp set of *l*, *n* and *r*, thus, *loisg e*, *lhoisg mi e*; *lean e*, *lheun mi e*; *namhaid*, *mo nhàmhaid*; *nigh e*, *nhigh mi e*; *rùn*, *mo rhùn*; *righ*, *mo rhigh*, &c. (Stewart's Gael. Gram., p. 28, par. 23.) The question of how to deal with the two classes of *l*, *n*, and *r* has been much discussed; and there are those who advocate the writing of the sharp set single and of the flat set double, thus *lloisg e*, *loisg mi e*; *nnàmhaid*, *mo namhaid*; *rrùn*, *mo rùn*, &c. This proposal is supported by the practice already existing in the language in the case of *ll*, *nn*, *rr* final, as *ball*, *bann*, *fearr*, &c.

T takes (·) as *tog e*, *thog mi e*.

T ... (·) ... *teugaisg e*, *theugaisg mi e*.

D ... ð ... *dàn*, *mo dhàn*.

D ... ð ... *dìon e*, *dhìon mi e*.

S ... (·) ... *sùil*, *mo shùil*.

S ... (·) ... *sìn e*, *shìn mi e*.

F and F take nil ... *fuil*, *m' fhuil*, *m' fheòil*.

M takes v, ... *mathair*, *mo mathair*.

M ... V, ... *mìos*, *auns a' mhìos*.

162. In the above list there is no regularity. Each individual case is a rule unto itself. Yet there is perfect

regularity in the written forms. Stew. Gram. pp. 11, 6, 7.

163. In the practice of many people *mh* differs from *bh* in the circumstance that the vowel following *mh* is nasalised.

164. *Fh* is sounded (·) in the words *fhein*, *fhuathast*, *fhuair*.

165. To be consistent with the others of the complete contact class, *t* and *d* should take for their inflected correspondents *·s* and *s*, and *s* and *f* would only be used as initial consonants in the inflected cases of words. Their natural functions would be the inflected forms of *t*, *d* and *p* respectively. The cause of these irregularities is for philological enquiry to determine.

166. **Seeming initial inflections.**—There are other seeming initial inflections which are not really such, as *n-*, *t-*, *h-*. *N-* before vowels is wrongly written so. The *n* belongs to the preceding word, as *arn athair* and *bhurn athair*. *T* before vowels and *s* is subject to similar remarks. *An t-anam* should be *ant anam*; *an t-saoghail*, *ant shaoghail*. *H-* before a vowel always follows a vowel ending the preceding word, as *na h-oighean*, *na h-oighe*, *a h-uodann*, *na h-uile*, *le h-eolas*, *ri h-uchd*, &c. The practice in reference to the first four examples, namely, *h-* before the nom. plur., before the gen. sing. fem., before a noun preceded by the fem. 3rd. pers. pron. poss., and before *uile* is uniform over the country. But, in regard to the cases of *h-* after prepositions ending in vowels before nouns beginning with vowels, the practice is neither general nor uniform. *H-* is really useful only between vowels of the same class; and, where there is no absolute rule, this proposition should determine when it should be used. There is no apparent necessity for *h-* in the following cases, *le urnuigh*, *le anam*, *gu eaglais*, *gu anam*, *ri uchd*, *ri anam*, &c. But there is in *gu h-urnuigh*, *le h-eagal*, *ri h-iunseadh*, &c.

167. **Silent written consonants.**—In the middle and end of words, the consonants to which *h* is attached are

frequently silent. Those which are oftenest so are *bh*, *mh*, *th*, *dh*. *Bh* and *mh* are frequently pronounced like *w*, e.g., *abhay* = AVAG or AWAG; *gomhainn* = GAViNN or GAWiNN.

168. **Vowel sounds in unaccented syllables.**—In unaccented syllables the spelling is no key to the pronunciation, as may be seen from the following list of some of the principal terminations and unaccented words in use in the language.

a is found in *tobar*, *astar*, *ochdnar*, *naoinear*; *bodach*, *boidheach*; *cuideachd*; *casan*, *builleán* (plural); *abhal*, *feurallas*, *cridhealas*; *lughad*, *bainead*, *gluasad*; *seachdamh*, *coigeamh*; *bualadh*, *teicheadh*; *mo chù-sa*; *solus*, *foghlum*; *sitheann*, *salann*; *dileas*, *buaireas*, *turas*; *duine*, *buille*, *gaire*. The article *an*, *am*, and *a'*; the verbal particle *an* and *am*; *air a chur*, a *dhòrn* (3rd pers. pro. poss.); *na*, *nan* (plural article).

A is found in *caman*, *sgulag*, *caileag*, *morán*; *an cù-san*; *an* (their), *a* (her) *dòrn*; *na tog*, *nar a mheul mi e*; *nam bithinn*, *nan deamadh*.

E is found in *togail*, *fagail*, *bigeil*; *feurail*, *cridheil*, *mathair-eil*; *sealgair*, *muillear*, *ministir*; *neoinean*, *fiouain*, *dh'ain-dheoin*; *camain*, *sgalaig*, *caileig*, *morain*; *boineid*.

i is found in *maighistir*, *tobair*, *astair*; *bodaich*, *boidhich*; *barraibh*; *gluasaid*, *lughaid*, *bainid*; *reisinid*, *argumaid*; *cachainn*; *uasail*, *unhoil*; *salainn*; *mìlis*, *tuailis*, *buailibh*.

I is found in *bualaidh*; *millidh*, *tuigidh*; *òigridh*, *eachraidh*; and frequently most of those in the preceding list.

O, *Q*, *V* and *U* are rarely found in unaccented syllables. In compounds in which the second word has one of these for its vowel, after the accent is transferred to the first syllable, the pure sound of the vowel of the second word is lost and it is replaced by some of the above short vowels, e.g., *ain-eolas*, *ain-eolas* = ANaLLas, and ENaLLas, &c.

169. **The Apostrophe.**—When one word is incorporated with another by the dropping of a portion of one of them,

the fact of such dropping having taken place is represented by the apostrophe, e.g., *do 'n* for *do an* ; *gu 'n d 'thug* for *gu an do thug* ; *'s an* for *anns an* ; &c. The apostrophe is an aid to the reader, no doubt, but it serves no purpose which would not be equally well served by retaining the ordinary space between the words whether whole or broken, e.g., *do n duine* ; *gu n d thug* ; *s an*.

170. **The spelling of foreign words.**—The spelling of foreign words by the Gaelic method is in many cases impossible, e.g., when a broad consonant precedes a small vowel as in the familiar word “tea.” *Ti* = *TII* and is, of course, a mispronunciation. Phonetically represented it would be *TH*, but giving the English sound to *t*. Some mark is required to protect the consonant from being regarded as small. This function might be fulfilled by the intervention of a colon e.g., *t:à* = tea ; *s:eula* = seal, Gaelicised.

PHONOGRAPHY.

The system which follows is designed to ensure a minimum of labour along with sufficient legibility. It is divided into four stages so related to each other as to make its acquisition easy to the ordinary intelligence. In the first stage, the simple elements are represented by detached phonograms; in the second, two or more elements forming a compound are similarly represented; in the third, the consonant symbols are joined together in the formation of words; and, in the fourth, contractions are introduced.

The symbols of the first stage, being written detached from each other, might be used for phonotypy.

In devising the system, the considerations which carried most favour were,—that the simplest forms, namely, straight lines and curves, are best,—that the relations between the symbols should follow regularly those existing between the spoken sounds—and that prominence should be given to the consonants, as it is chiefly by them words are recognised.

Conform to these guiding principles, the following subordinate ones were selected as those probably best suited to the Gaelic language.

Straight lines for the “complete contact” series.

Curved lines for the “partial contact” series.

Long lines for the “weak” and “flat” series.

Short lines for the “strong” and “sharp” series.

Thin lines for the “low” series.

Thick lines for the “high” series.

Dots, small straight and curved lines for the vowels.

The following scheme accords with the foregoing principles as closely as practical considerations admit of.

For the values of the vowel phonotypes the reader is referred to the table of vowels at p. 23, par. 53 of *Phonetics*, and also to p. 25, pars. 55 to 62. The value of the consonant phonotypes will be learned by reference to the tables of consonants at pp. 48, 49, par. 103.

FIRST STAGE.

VOWEL PHONOTYPES.

a i; A V; O Q U; E E I || aa ii; AA VV; OO QQ UU; EE EE II.

VOWEL PHONOGRAMS.

• • - ~ c d o / \ i • • = ∞ & 3 m ~ ~ / //

CONSONANT PHONOTYPES.

1	U O	T S N	P F M	R L	(.)
	G O	D S NN	B V M	RR LL	(.)
2	C O	T S N	P F M	R L	(.)
	G O	D S NN	B V M	RR LL	(.)

CONSONANT PHONOGRAMS.

1.	| (k)	—	~	~	/	/	/	\	U	U	/
	| (k)	—	~	~	/	/	/	\	U	U	/
2.	| (k)	—	~	~	/	/	/	\	U	U	/
	| (k)	—	~	~	/	/	/	\	U	U	/

NOTE.—The Labial expansion and contraction is to be represented by a diminutive F and Nasality by a diminutive m. They will be introduced in the first example which follows.

PUNCTUATION.

1 Comma, 2 Semi-colon, 3 Colon, 4 Period, 5 Parenthesis, 6 Quotation, 7 Query, 8 Exclamation, 9 Hyphen, 10 Accent, 11 Emphasis, 12 Capitals, 13 Foreign, 14 Contraction, 15 Interline, 16 Asterisk.

PUNCTUATION MARKS.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

“ ” „ × “ ” & 2 “ — “ ” “ ” *

Numbers 6, 9, 10, 11, 12, 13 to be placed above the line.

RULES.

The rules for the guidance of the learner are very simple and as follows :

All letters are to be written downwards from the line, except the horizontal ones which are to be on the line, and the (·) and (ˆ) which should always be written upwards to the line.

All letters except the perpendicular ones and the P B F V M class are to be struck from left to right.

All sloping stems should make an angle of 45° with the horizontal, except PP and BB, which should make an angle of 60°, and (·) and (ˆ), which should be at an angle of 30°, with the horizontal.

All letters are to be written detached. The spaces between words should equal the length of a long stem.

In ordinary circumstances long stems should be a quarter of an inch in length, short ones an eighth of an inch, and vowels less than a sixteenth. In all cases these relative proportions should be maintained.

Broken words, such as those which follow, should be written separate, as usual, but without any sign corresponding to the apostrophe, thus : *do an* = *do 'n* = DQ N ; *anns an* = *'s an* = S AN, &c.

The symbols for 's', 'S'; P, B, F, V; the long M; the thick M; and the thick (·) and (˙) are all, in a sense, superfluous. But, as they come to be useful in the advanced stages, their functions may be learned at this stage. The thick stems referred to may be used in conjunction with high vowels; the thin ones with low vowels; the short ones with short vowels, and the long ones with long vowels.

The symbol for nasality (.) will be readily remembered as a diminutive M, and it is to be placed after the nasalised vowel.

The symbol for *w* is a diminutive F; and, in Gaelic, follows the vowel. It may be used before the vowel to represent the *w* of English words like "war," "wait," &c.

The symbol for (˙) should be used between two vowels coming together but not forming a diphthong, e.g., *muthudh* = MUU'AG. It may be used initially to indicate the initial inflection of words beginning with *fh* and *th* in cases such as the following—*mu 'n d' fhàg* = MU N D 'AAG; *gu 'n d' thug* = GU N D 'UG; *m' fhacal* = M 'ACALL, &c. The (·) should be used medially only in the conditions referred to in par. 122, Phon., and always initially when *th*, *sh*, or *fh* are sounded *h*, e.g., *thig mi fhathast* = 'IG MI 'A'ASD; *shil mo dheoir* = 'IL MQ ɣEOR; *air an t-saoghal* = *air ant shawghal* = ɛR ANT 'VY:ɔALL, &c.

EXAMPLES.

SPIORAD NA H-AOISE.—Bha ainm roimhe so, air chùl Beinne-nan-sian, àireach ghobhar d' am b' ainm Gorla-nan-trend, aig an robh *trìuir mhac* agus *aon nighean*. Bha buachailleachd nam meann an earbsa ri àilleagan an fhuilt òir. Là de na làithean, an uair bha i mach ri uchd na beinne a' buachailleachd nam meann, theirinn badan de cheo druidh-eachd,* cho geal ri sneachd na h-aon oidhche, agus, air dha

* Mist of enchantment.

iadhadh mu ghuala na beinne, chuairtich e an t-àilleagan aonarànach 'us cha 'n fhacas i ni 's mò.

~ ~ ~ ~ ~

~ ~ ~ ~ ~

~ ~ ~ ~ ~

~ ~ ~ ~ ~

~ ~ ~ ~ ~

~ ~ ~ ~ ~

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~ ~ ~ ~ ~

~ ~ ~ ~ ~

~ ~ ~ ~ ~

~ ~ ~ ~ ~

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~ ~ ~ ~ ~

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~ ~ ~ ~ ~

~ ~ ~ ~ ~

~ ~ ~ ~ ~

~ ~ ~ ~ ~

1. Thig mi fhathast. Shil mo dheoir. Air an t-saoghal.

2. Mu 'n d' fhàg. M' fhacal. Meann. Domhsa.

3. Thubhairt e "cha 'n è." An-togradh. Neo-eismeil.

1. ~ ~ ~ ~ ~

2. ~ ~ ~ ~ ~

3. ~ ~ ~ ~ ~

~ ~ ~ ~ ~

~ ~ ~ ~ ~

WORDS VARIOUSLY PRONOUNCED.

- | | |
|------------------------|-----------------------|
| 1. Athair, cothaich. | Ceò, beò, eliù. |
| 2. Deamhan, feadh. | Cliath, sluagh. |
| 3. Fann, ceann, beann. | Samhradh, geamhradh. |
| 4. Toll, lom, fonn. | Fionn, siolla, diomb. |
| 5. Eoin, iollach. | Ceangal, peacadh. |

1. * *
2. * *
3. * *
4. * *
5. * *

The symbols for *a* and *i* in being light and heavy, respectively, follow the principle which regulates the consonant phonograms. Should the difference of size fail to be produced, the fact will not impair the legibility, because the character of the adjoining consonant phonogram determines the value of the vowel.

The use of the two characters for each of the *ɔ* and *l* serieses is unnecessary to this stage; but the advantage of the arrangement will be seen in the advanced stages.

SECOND STAGE.

COMPOUND VOWELS.

- 1 Dàimh, daimh. 2 Caoidh, caibe. 3 Dòibh, troimh.
 4 Tuill, uime. 5 Ceò, deoch. 6 Teò beothach. 7 Cliu,
 fliuch. 8 Call, ann. 9 Toll, fonn, lom. 10 Ceann, geall.
 11 Buon, buain. 12 Bian, fuaire.

1. x 2. x
 3. x 4. x
 5. 6. x
 7. x 8. x
 9. x 10. x
 11. x 12. x

COMPOUND CONSONANTS.

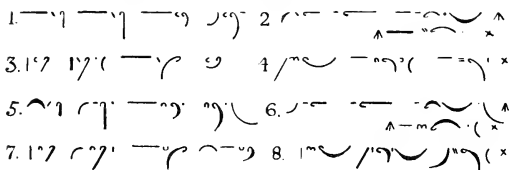
"R FOLLOWING" SERIES.

- 1 Crom, gràdh, chrom, glràdh. 2 Trom, droch. 3 Pronn,
 òron, phronn, bhron. 4 Thrus, shròn. 5 Crith, grinn,
 chrith, ghrinn. 6 Tric, dris. 7 Preas, bris, phreas, bhris.
 8 Thric, shrian.

1. x 2. x
 3. x 4. x
 5. x 6. x
 7. x 8. x

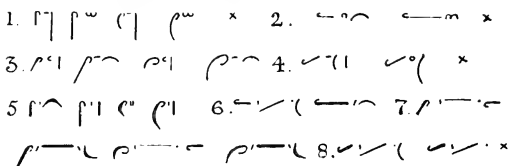
"R PRECEDING" SERIES.

1 *Dearc*, *dearg*, *dorcha*, *morghath*. 2 *Feart*, *ard*, *tarsainn*, *dèarrsadh*. 3 *Corp*, *cearbach*, *dearbh*, *orm*. 4 *Bùrn*, *turloch*, *tàrlaidh*. 5 *Seirc*, *fairge*, *duirche*, *uirgheall*. 6 *Mairt*, *aird*, *airsneal*, *tùirseach*. 7 *Cuirp*, *fuirbidh*, *doirbh*, *stoirm*. 8 *Cuirm*, *birlinn*, *meirleach*.



"L FOLLOWING" SERIES.

1 *Ulag*, *glaoth*, *chlag*, *ghlaodh*. 2 *Thus*, *dlùth*. 3 *Ploc*, *blas*, *phloc*, *bhlas*. 4 *Thlachd*, *shluagh*. 5 *Clis*, *glic*, *chlì*, *ghlic*. 6 *Tligheach*, *dleas*. 7 *Pliodairt*, *bleideil*, *phliodairt*, *bhleideil*. 8 *Thligheach*, *shlighe*.



"L PRECEDING" SERIES.

1 *Olc*, *dealg*. 2 *Falt*, *calllach*, *fallsa*. 3 *Calpa*, *sgolb*, *falbh*, *calma*. 4 *Diulnach*. 5 *Uilc*, *seilg*. 6 *Fuillt*, *coilltean*, *soillse*. 7 *Ailpean*, *sgillb*, *cuillbhear*, *ailm*. 8 *Failnich*.

1. x 2. x
 3. x 4. x
 5. x 6. x
 7. x 8. x

"S" SERIES.

1 *Sgath*, *fasyadh*. 2 *Stad*, *asdar*. 3 *Spad*, *easbuig*, *smalan*. 4 *Snas*, *sloc*, *srae*. 5 *Sgeith*, *uisge*. 6 *Steidh*, *eisdeachd*. 7 *Speis*, *isbeann*, *smeid*. 8 *Snìomh*, *sleibh*, *srìan*.

"S-R" and "S-L" SERIES.

9 *Sgrob*, *strup*, *sprochd*. 10 *Sgread*, *strith*, *spreidh*.
 11 *Sglamh*, *splaidse*. 12 *Sgleò*, *spleuc*.

1. x 2. x
 3. x 4. x
 5. x 6. x
 7. x 8. x
 9. x 10. x
 11. x 12. x

"N FOLLOWING" SERIES.

1 *Cnàmh*, *gnàth*, *chnàmh*, *ghnàth*. 2 *Tnu*. 3 *Mnà*.
 4 *Thnà*, *shnàmh*. 5 *Cneas*, *gnìomh*, *chneas*, *ghnìomh*.
 6 *Shnìomh*.

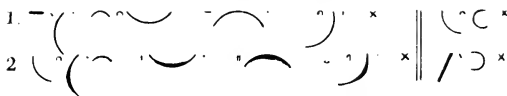
- 1 x 2. x
 4 x 5 x 6. x

"N AND M PRECEDING" SERIES.

1 Teanga, *sunnd*, *annsa*, *umbaidh*. 2 Luingeas, *innle*,
innseadh, *uimpe*.

OC.

Luchd, *beachd*.



The particular features of the second stage which require to be noted are as follows.

Hooks at the beginning of stems, on the lefthand side, or, in the case of horizontal stems, on the underside indicate an added *r*, after the stem, if it precede a vowel; before the stem, if it follow a vowel.

The same rule applies to *l*, the hooks being on the right hand and upper side of the stems.

The exceptions are as follows.

The horizontal curves *s*, *S*, and *xx*, *NN* take large open hooks to represent *LL*, *LL*, *L* preceding, and small hooks to represent *RR*, *R* preceding.

The sloping curves for *FRR*, *VRR*; *FR*, *VR*, *RRV*, *RV*, *RRM*, *RM*, take a small hook on the right hand or concave side.

The curves for *FLL*, *VLL*; *FL*, *VL*; *LLV*, *LV*; *LLM*, *LM* take a larger hook on the concave side.

Loops at the beginning of stems, on the right hand side of straight stems, and on any side of curved stems indicate a prefixed *s*. They may be initial or final of the syllable.

Loops at the beginning of stems on the left hand side indicate a prefixed *s* and an affixed *r* to the consonant represented by the stem. Loops added to the *l* hooks indicate a prefixed *s*. These are found attached to straight stems only.

The symbol for *oc* is distinguishable from that of *o*, by being a semicircle as opposed to the quarter-circle which is used for the other curved stems.

In the case of combinations to which the distinction of long and short stems are not essential, the long ones may be associated with long vowels and the short ones with short vowels.

INTRODUCTION TO THE THIRD STAGE.

By way of introduction to the third stage, the following scheme for the vowels may be learned and practised alongside of the consonant formations of the preceding stage.

The vowels, instead of being all written on the line, are assigned places relative to the accompanying stems. The places number from the beginning of the stem no matter in what direction it may be struck. The first place is at the beginning, the second place at the middle, and the third at the end.

Simple vowels are written first place. Diphthongs of which the second element is a high vowel are represented by the first element written second place. Those whose second element is a labial vowel or the labial contraction *w* are written third place. *Ua* and *iu* retain the symbols already allotted to them.

Long vowels and diphthongs should be written thick; thin ones thin.

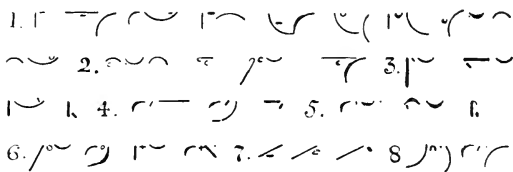
Vowels sounded without an accompanying consonant may be written against the symbol for (‘) so that position may be assigned to them.

Nasality may be disregarded and the sign disused, except when it is specially wanted.

The symbol for (‘) between vowels may be disused and the vowels placed after each other. Position being assigned to the diphthongs, there will be no liability to regard the two vowels, so placed, as diphthongs.

EXAMPLES.

1 Cath, daimh, faun; càs, làimh, lagh, caol, aoibhneas, sonn. 2 Sonas, troimh; bròn, doibh. 3 Gean, dèan; ceann, ceò. 4 Fead, feum, teó. 5 Fine, sìn, cliù. 6 Buan, fuaim, cian, faire. 7 à, òi, eò. 8 Muthadh, feitheamh.



THIRD STAGE.

In the third stage all consonantal stems are joined without lifting the pen until a word is completed, and the vowels are then filled in in accordance with the rules immediately preceding.

When a third place vowel cannot be conveniently placed after the stem preceding it, its place is before the stem following it.

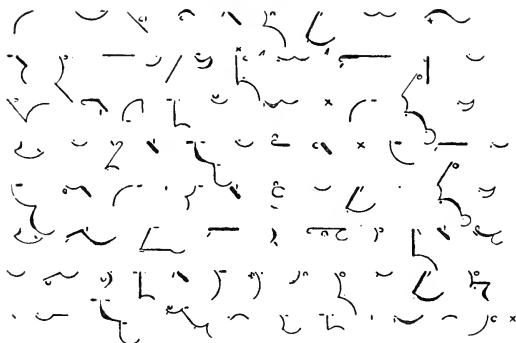
When straight stems of the same thickness, and going in the same direction, have to be repeated, a small space is left between the one and the other.

The F, v and M symbols may be struck upwards when that direction gives the best angle with the preceding or following stem. Standing alone they must be struck downwards. In the case of letters having two symbols, the same principle will determine which of the two to use.

Affixes coming before the accented syllable to be written close to the following word but unattached.

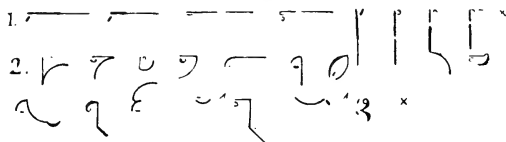
EXAMPLES.

SPIORAD NA H-AOISE.

(See page 78.)

1 Deud, teud, dad, trod, geng, gog, cuigeal, clag.

2 Gabh, taobh ; cum, taom ; fad, fàg ; bheum, toirm ; fallain ; freagair ; fallh, an-togradh, neo-eismeil.



FOURTH STAGE.

A loop at the end of a stem on the right or upper side implies an added *o* ; when large, *oo* ; when long, *o*.

A loop at the end of a stem on the left or under side implies an added *s* ; when large, *st* ; when long, *S*. The *st* loop may be thickened for *ST*.

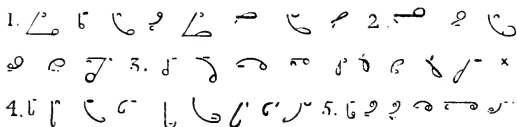
A hook at the end of a stem implies an added *x* ; when large, *xx*. These may be thickened for *X* and *NN*.

The *o* and *s* loops may be added to the *x* hook, the former on the right and upper side of the stem, the latter on the left and underside.

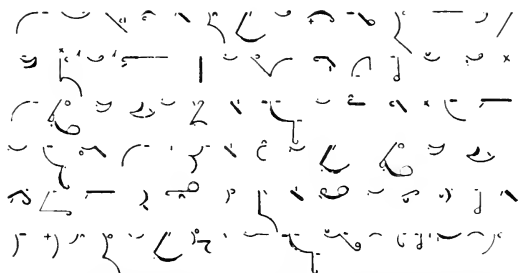
Unaccented vowels may, in most instances, be dispensed with without impairing the legibility.

EXAMPLES.

1 Bodach, cach, lueh, moch : bodaich, teich, laoich, theich. 2 Deachd, thaehd, luchd, smachd ; fathast, tubaist, 3 Cas, las, sàs, tùs : cois, leis, fois, réis, bàis. 4 Can, gun, lan, fan ; gann, lann, binn, fein, maoin. 5 Canach, manach, meadhonach : sanas, donas, mathanas.



SPIORAD NA H-AOISE.

(See page 78.)

In practising the phonography it would be advisable to use paper ruled with lines one-eighth of an inch apart until the power of correctly estimating the relative proportions of the stems is acquired.

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